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TAX PRESSURES ON ACCOUNTING PRINCIPLES AND ACCOUNTANTS' INDEPENDENCE*

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TAXABLE INCOME AND BUSINESS INCOME[1]

IN THE EARLY DAYS of income taxation the concept of "income" was imperfectly understood and tended to be confused with simple cash receipts or net cash increase, and some heritage of this confusion remains in our difficulties with the concept of realization. However with the 1918 expansion and re-examination of the tax the earlier simple cash-basis approach was deemed unworkable in broad areas and the principle developed that income should be determined "in accordance with the taxpayer's regular method of accounting" if satisfactory to the Commissioner, and generally speaking on the accrual basis, and this remains the basic rule today.

Over the years and at an accelerating rate divergencies between taxable and business income have become so important and all-pervasive that the validity of the basic rule must be challenged outright, though it has been regarded as axiomatic or sacrosanct. Thus there has been an effort to maintain an unrealistic or impossible identity of what appear to be two different concepts. This effort is interfering with the proper understanding and development both of accounting principles and proper bases of taxation. The result is injustice and inconsistency between taxpayers. There also is exerted an unhealthy but powerful influence on accounting; tax law and enforcement are influencing accounting principles much more than the opposite. The time has come to recognize by divorce the separation-in-fact between taxable and business income, permitting each to go its way pursuant to the underlying purposes and nature of each.

Every man is his own tax expert these days and sometimes it seems that tax considerations are not just the most important but the only considerations at the top level in business policy determination.

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* Presented at the Northwest Graduate Accounting Study Conference, Alderbrook, Washington, May 23, 1952.

[1] See Smith and Butters' *Taxable and Business Income* (New York: National Bureau of Economic Research, 1949), and the continuing series on *Effects of Taxation* from the Harvard Business School. See also the Business Income Study Group's *Changing Concepts of Business Income* (New York: Macmillan Company, 1952) and supplementary publications, and the splendid reviews thereof by George Husband in THE ACCOUNTING REVIEW, July, 1952, and by Eric Kohler in *The Illinois Certified Public Accountant*, March, 1952 and by Percival Brundage in the *Journal of Accountancy*, February 1952. There is a considerable bibliography on the subject, lengthened by the effects of the business cycle in the 1930's and now again in the 1950's.

Everybody knows that income costs money—i.e. that *taxable* income costs money, and to nearly everyone this means that *accounting* income costs money. Most people realize in a vague sort of way that income before taxes is determined by various non-accounting considerations, largely in the market-place (except for regulated business); and that the accountant attempts to determine what that income was; but they also realize that what the accountant determines as income has a lot to do with what is left after taxes. Tax considerations give income-determining significance to accounting decisions. What powerful pressures are brought to bear on accounting principles with corporations at 52%–82% and individuals at 22%–92% rates! If what accountants are trying to determine is something different from what Uncle is after and what the taxpayer is trying to hang on to, then the accountant, the "innocent bystander," is in an unnecessarily exposed position.

A review of the divergencies which have developed between taxable and business income is likely to surprise most accountants, legislators, lawyers, economists and certainly taxpayers.

Among the most important present differences are the following:

1. *Percentage depletion.* Depletion as a percentage of revenue unrelated to cost as now deductible for tax purposes by many extractive industries, is absolutely foreign to the matching of costs with revenue, accounting's central problem. The current free-enterprise prosperity of Texas is percentage-depletion prosperity.

2. *Accelerated amortization* (as of emergency facilities, etc.). Where the determination of useful life for depreciation purposes is made by administrative fiat—five year,—any relation to proper accounting depreciation is purely coincidental. In Britain a similar practice is a flat initial allowance—40% the first year. Both provisions are in effect interest-free loans to encourage certain types of capital formation, the *total* depreciation being limited to cost. Yet this simple expedient, or subterfuge for a modest subsidy, has for the most part been carefully wrapped up in the accounts with resulting successive understatement and overstatement of profits.

3. *Inventory methods.* Anyone who thinks that the spectacular swing to LIFO comes from an equally sudden awakening of accountants to its intrinsic merits *a la* some of the rationalizations, has got his head in the sand. LIFO has been adopted for tax purposes. The Bureau in a holding action managed to limit the use of LIFO to those concerns regularly using it, in their accounts and statements, thinking that this limitation would effectively restrict use to industries to which LIFO had in generally accepted accounting principles been regarded as appropriate. How wrong they were! Where it has appeared tax-wise to use LIFO there has been no trouble at all in getting it into the statements. I do not argue the merits of LIFO. I simply point out that it has become incorporated into generally accepted accounting principles, as, i.e., for department stores, entirely as a result of certain tax advantages accompanied by a somewhat cynical Code provision which was consistent with the "basic rule" above cited. This has serious implications, to be dealt with more fully below.

4. *Pension plans and deferred compensation.* The reporting of cost has been in part or wholly dictated by deductibility for tax purposes, though perhaps in lieu of agreement on an alternative.

5. *Capital gains vs. "ordinary" income.* Here by reason of the 26% tax limitation, one kind of income becomes more desirable than another. This is perhaps the principal tax consideration in contemporary business decisions. While the main influence is no doubt on the types of economic activities in which business men engage, there is also much influence on the *form* in which such activities are undertaken or described.

6. *Substituted, carried-forward, stepped-up and transferors' bases.* These special types of "cost" for tax purposes are related to tax-free exchanges, involuntary conversion, and to item 5 above; also included in the category are bases established as of March 1, 1913, and others. In the lumber industry we have a provision that in effect permits the lumberman to sell his cheap logs to himself at current prices, for a 26% capital gain; then he sells them to his customers at a more modest gain taxable at 52%–82%. All these maneuvers, though justified for tax purposes, have little or no relation to accounting concepts of cost.

7. *The "tax benefit" doctrine.* Entirely rational for tax purposes but devoid of meaning accounting-wise, are the various provisions by which

deductions in loss years (e.g. bad debts, *et al.*), don't count.

8. *Tax exemptions.* Municipal bond interest, gifts and inheritances, proceeds of life insurance and related premiums, certain G.I. pay, etc. are given arbitrary statutory treatment, usually without accounting parallel.

9. *Miscellaneous provisions* exist to undermine cherished accounting contrasts of capital and revenue and expense: container deposits, instalment sales, prepaid rent, property taxes, bad debt reserves for banks, consolidated statements and intercompany dividends, reserves, research costs, exploration and development, "ordinary" and "extraordinary," surplus and profit-and-loss entries, etc.,—distinctions in one field or the other without carry-over, except for expediency.

10. Also mentionable are *artificial contractual relationships* such as the lease-backs, entered into to distort the form without changing the substance of a transaction. Accountants have been better able to deal with distorting effects on the financial statements, than with those on the tax returns. In the latter, accountants' hands have been tied by over-riding considerations, by lack of primary responsibility, and by assumed positions of advocacy.

WHY THE DIVERGENCIES BETWEEN TAXABLE AND BUSINESS INCOME

In part these differences are what we call "legalistic"—due to lack of understanding of economics, accounting and the concept of income by legislators and lawyers. In part they are administrative, to protect against loss of revenue by causing a tax to become payable when the taxpayer has the cash; also under this heading is the necessity as a practical matter for fairly definite and enforceable standards. As with the S.E.C., the Internal Revenue people have a hard time finding landmarks in a changing and uncertain field. There are too many "generally accepted accounting principles" for enforcement purposes—eleven different ways to amortize intangibles, for instance. With all the Institute's and the Association's accomplishments over years of effort, we still are without agreement on terminology, and though "general acceptance" is, and properly, the very basis of our discipline, we are quite prone to define "generally accepted" as "somebody tried it." Nobody could enforce a law that was without definition of terms or standards of procedure.

But these are minor. The main reasons for the differences between taxable and business income are the differences in the objectives for which each is determined. What are they?

The Nature and Purpose of Accounting

The purpose of accounting is to provide information.

Accounting is intellectual exercise but it is not *an* intellectual exercise. It is utilitarian. It is a language and a system of measurement. It is a body of convention and procedure and not a body of logic. Language is conventional and measurement is procedural. We are trying to transmit information; we are not investigating laws of nature, not constructing a science. It's an art, a means of expression.

Comparability and consistency are the prime requisites of such a system, so that the reader will receive the information the writer intended to transmit, and so that comparisons may be valid and trends and differences determined. The significance of accounting data is usually in relationships rather than absolutes. This year's profit for this company is significant only if we know last year's and the year before that and what other companies did. Of the gravest danger are tendencies that lead to inconsistency and noncomparability inasmuch as comparisons and trends might be assumed to be of substance when only of form. Thus the significance of the accountant's opinion that statements "fairly present financial position and results of operations in accordance with generally accepted accounting principles" consistently applied. The words "generally accepted" are to provide comparability between companies and "consistency"

provides for comparability of data for different periods.

The duty of the accountant to the public in the preparation and certification of financial statements is that of an expert in difficult and complex concepts, often as an arbiter of adverse interests in the measurement of relative values. The core of his function is in impartial and honest and meaningful measurement and expression, only possible by adoption and use of consistent terminology and units of measurement, generally understood and applied. *Comparability and consistency*—these are the proper standards of accounting. It will be argued herein that noncomparability and inconsistency are of the essence both of the determination of taxable income and of tax saving.

The Objectives of the Determination of Taxable Income

Taxable income is the base of the income tax, which is a tax determined in part by the principle of "ability to pay"; the idea is to support the government by collecting taxes so as to minimize the total sacrifice by taxpayers. This concept is identical with that of charging "what the traffic will bear," or "getting the most feathers with the least squawking." Of course business income is only a part of, and not necessarily a good measure of ability to pay; e.g., unrealized appreciation in value though not business income may represent ability to pay. Certainly gifts and inheritances reflect as much taxpaying ability as earned income, maybe more; and so on. But business income is a part of it.

There are some other objectives of taxation than supporting the government according to ability to pay. First among them is the control of the price level—consciously applying the deflationary effects of taxation vs. the inflationary effects of government expenditure. The government has assumed far-reaching economic responsibility. An understanding of taxation would be very incomplete without a realization of the place of the Federal deficit or surplus in current economic thought and in public policy.

Taxes are used to accomplish other overt or covert social ends. Taxation is used to promote "brimful" employment, that sacred cow of modern politico-economic thought. It is notably used to promote or discourage certain types of economic activity (i.e. Texas vs. the rest of us). It is used to promote the investment of risk capital (via the capital gains provisions), or to discourage the same thing (via the interest deduction and dividend non-deduction). It is used to encourage a levelling of incomes via super-progressive rates and the abandonment of *quid pro quo*. The immense power of taxation can be used to enrich or to destroy. Taxation gives aid to some and discourages others; it rewards the politically powerful at the expense of the politically weak. Nor is this necessarily wrong; taxation is simply a weapon, and a powerful one, in the arsenal of government by which political means are used to accomplish economic ends. These are the aspects of taxation that are increasingly important. The rewards and penalties and hence the results of taxation at the present rates are swift and effective. They rest on discrimination, their objective being change. Let him think twice who would hold that "accounting principles" are going to make or long affect these social and economic policy determinations.

What Are the Prospects for Reconciling Taxable and Business Income?

Clearly income is not being determined "in accordance with the taxpayer's regular method of accounting" in some pretty important respects. Is it likely to become so? What will be the result of an effort to

make it so? Take percentage depletion or replacement-cost depreciation for example. If percentage depletion to be deductible required an unqualified certificate that it conformed to "generally accepted accounting principles" would percentage depletion disappear from tax returns? Or would accounting principles be revised? The experience with LIFO provides a clue. The pressures are too great and they are unfair. But the public knows the answer and, I fear, so do the accountants. Here is a footnote from E. Cary Brown's *Effects of Taxation-Depreciation Adjustments for Price Changes* (Boston: Harvard Business School, 1952), p. 43, on the question of adjustments in accounts for replacement-cost depreciation if the latter should become acceptable for tax purposes:

> "The position of accountancy bodies would have had to change before this result could be widespread. But almost surely tax depreciation would have become acceptable for company reports. A number of 'unacceptable' accounting procedures have received sanction in this way."

Perhaps percentage depletion or replacement-cost depreciation should be proper for certain industries or certain companies or for everyone. The point is that their acceptance for tax purposes has nothing necessarily do to with the measurement of income for accounting or economic or other purposes. The tax purpose is to reduce the tax burden of some segment of the economy, presumably because social policy desired to encourage that segment —or because its Congressman was able to get it some selective relief. The determination of relative tax burdens is the province of Congress which may and does act not only with selective rates but also with special and selective methods of income determination. Such a selectively determined *taxable* income is not the comparable and consistent *accounting* or business income of which it is our duty to inform the lay and we hope the trusting public.

The legalistic and administrative differences between taxable and business income may not be too troublesome and in the long run may be removed by mutual education and improvement. Ability to pay may be reconciled with a proper determination of business income, the latter as a subdivision of the former kept in proper perspective (and there are many forms of ability to pay that are not now "accounted for"). But the social, economic and policital objectives of tax policy are far too important—they are over-riding and they are not going to be abandoned. And they are selective in their very nature. They are entirely inconsistent and apart from the principles of description and measurement, comparability and consistency. They will not be subject to, or controlled by, what we may here refer to as "mere bookkeeping."

With the forces of government and economic advantage arrayed on the other side, efforts to maintain consistency between taxable income and "the taxpayer's regular methods of accounting" if the latter are based on accounting principles otherwise determined, will bring to bear absolutely irresistible pressures on accounting concepts of income. Distortions of accounting income to conform to or to resist political objectives of tax policy are inevitable. Business income will be politically determined and politically measured. Efforts to identify taxable and business income will inevitably result in changing the latter to agree with the former.

One further thought in this connection: Accountants regard it as their duty to state the "facts" (recognizing that we mean by "fact" an objective determination within a consistent framework of expression); management's duty is to take action. We have presumed that management's actions will tend more to be wise and timely with the facts than without, but at any rate we supply the facts and

they take the action. Now management sometimes likes to ameliorate its problems by concealing them, especially in its relations with the government, customers, employees and stockholders in matters of profits. The *determination* of profits is our job; the *administration* thereof is management's. Pressures on management for profits that look high come from the four groups mentioned. The government wants taxes, the customers lower prices, the employees higher wages and the stockholders dividends. The management wants to "maintain capital." But the problem can be ameliorated at least in the short run if the *reported* profits can be held down. That brings pressure on accountants.

Of course nobody wants lower income. That's an easy way to avoid a problem of income administration but what is desired is the income without the problem. As to income taxes, it is the *reported* income that the tax is on; so the idea is to have the real income without the reported income. In the long run the total burden of taxes isn't going to be changed by the reported income. Only the rates would change. Taxes may be shifted between taxpayers, though, and thus real individual tax-saving accomplished in the short run. Accounting determinations have income-(after tax) determining effect for the particular taxpayer but only at the expense of other taxpayers and not in total.

What Is the Solution?

In the first place taxable income should be generally recognized as a different thing from accounting or business income. The out-dated and undermined principle that income should be determined for tax purposes "in accordance with the taxpayer's regular method of accounting" will have to be appropriately qualified and restricted to details of procedure. The LIFO requirement which has so seriously inhibited full disclosure of financial position in published reports must be repealed. Different treatment of different taxpayers should be open and above-board and not buried in obscure distortions of revenue and expense concepts.[2]

Fictional correspondence of taxable and business income should not be forced. Accountants should resist all efforts to prostitute accounting principles to tax ends and should constantly remind themselves of the underlying precepts of consistency and comparability, which are foreign to the special-treatment tendency of taxation. Though we may as citizens decry and resist such special treatment in taxation, it remains the duty of accountants to resist its encroachment on accounting determinations. Unless accounting principles are determined independently of tax considerations, those principles can hardly provide an independent standard with which to appraise special deviations when they do appear in taxable income determination. However the tax be determined, it is simply one of the expenses in the accounting report; the rest of the report should be otherwise determined in accordance with an independent body of rules and procedures.

Accountant's reports should probably include a statement of taxable income and a reconciliation with reported income, much as provided in the corporation tax return and for the same reason: full disclosure of an important matter. While the phrase "two sets of books" is unacceptable, the necessity for supplementary records to record taxable as distinguished from accounting income, will be unavoidable. We will eventually realize that there is no more reason for taxable income to determine accounting income than for as-

[2] The current Congress is in process of mumbling itself some tax-free income in the guise of traveling expense, buried in an irrelevant section. This is not different from some of the loophole-opening for constituents that burdens the Code. Let these things be done openly.

sessed values to determine balance-sheet values; and we will report the discrepancy when it bears importantly on financial condition as it frequently does.

The alternative will be a fear or a realization on the part of the public that accounting reports may be distorted for tax purposes, with distrust of the impartiality, comparability and consistency and therefore usefulness, and reliability of certified statements and the certifiers, and a demand for someone else to do this important work. In modern experience a governmental agency would no doubt be a willing candidate for the job.

Full disclosure is not enough. The public needs and expects expert and independent assistance in this highly technical field with an independent judgment on the reliability of published statements. All the footnotes and qualifications in the world, all the "disclosure" that a long-form report can contain, are no substitute for this independent appraisal. I am reminded of Maurice Peloubet's story of the ice-cream vendor who, on passage of the Pure Food and Drug Act, complied with full disclosure as follows: "All my syrups and ice creams are highly adulterated." The principle is the same as that of the Institute's Auditing Statement 23 in which the accountant is required to express himself, not just hedge himself.

TAX PRESSURES ON ACCOUNTANTS' INDEPENDENCE

It has been pointed out that intense pressures may be brought on the determination of accounting income when that is identified with taxable income. When the accountant is a member or employee of management his determinations are those of management. In the sense that management's duty is to conserve the company's assets, it is natural and proper that management will determine close points in favor of the company, the tax burdens being as great as they are. But the situation for the independent public accountant is a different one. The same understatement of income that saves taxes also may defraud an otherwise uninformed minority interest —the bulk of the ownership in the case of publicly-owned corporations. The independent certified public accountant has a specific higher duty to the public than to his client. The essence of his professional position is in his independence. Therefore, since the pressure of tax saving is to minimize not the fact of income but the reporting thereof, he finds himself in some difficult positions where full and comparable reporting may be inconsistent with a tax position taken by management. Furthermore an important part of a public accountant's practice may be in the income-tax field; and he may find himself in an inconsistent position between himself as a tax consultant and as an independent certifier of financial statements.

It is very difficult for a tax consultant to avoid a position of advocacy. Indeed it has been well said that in tax practice accountants are the only ones who regard themselves as independent. Certainly the client does not regard the public accountant as a "government auditor"; neither does the government. There are many matters in which client's personnel, public accountants and even government auditors may work together to make a proper determination of fact. This is as it should be and it is important; the government's task would be greatly, impossibly increased otherwise. But there are other matters in which accountants, some more than others, find themselves making decisions which unavoidably are *for or against* a client's interest taxwise. Furthermore an accountant is frequently in a position, in tax practice, of defending a determination which he or the client has made; such a determination is always favorable to the client. The government's

auditors are advocates of the government's position. As a group they are charged with maintaining the revenue. As individuals it seems quite likely that they will be graded at least in part on the additional taxes they bring in. Likewise will the independent accountant find himself in a position of advocacy. He too is graded at least in part on taxes—the taxes he saves for his client. When tax practice places an accountant in a position of advocacy rather than impartiality he is outside of and inconsistent with his position of independence in the public interest.

Independent public accountants will have to watch out for this pitfall. They will have to carefully segregate their practices in their own minds (this they can do), between tax advocacy and independent determinations. Staffs will have to be segregated; let the tax sections do the arguing; let the auditors make independent decisions. There will have to be full disclosure and open determination of disputed points, however unfair the government's auditors may sometimes appear in taking advantage of the information. When the position can not be disclosed, when only the favorable may be disclosed, then are the attorneys right in claiming the field for themselves. Theirs is the professional practice of advocacy; ours the professional practice of independence.

The independent accountant may certainly assist and advise in the determination of tax effect and tax liability; no one is so well qualified. But he must clearly differentiate in his mind taxable and accounting income and he must report the latter impartially and openly. The alternative will be government assumption of the independent accountants' task with the evils of inflexibility and bureaucracy, and the challenge to our way of life which that brings. Surely in recognition of the threat to orderly development of accounting principles and their usefulness to the public, and of the threat to their own essential attribute of independence, the public accounting profession will take the lead in the necessary separation of the concepts of taxable and business income.

SUMMARY

The differences between taxable and business income are so numerous and important that the two concepts must be regarded as essentially different. These differences are in part "legalistic" and in part administrative, but more importantly they reflect basic differences in the objectives of the determination of taxable income and of business income. The divergencies are not likely to be resolved. Therefore it becomes necessary to abandon the postulate that taxable income should be determined "in accordance with the taxpayer's regular method of accounting." Attempts to maintain a fictional identity of the two concepts can only lead to political determination of business income, as tax pressures are too powerful to be resisted by accounting principles otherwise determined.

Taxable income must be recognized as different from business income; accountants should resist efforts to prostitute accounting principles to tax ends; accountants' reports must be determined independently of tax considerations. Reports should include reconciliations of taxable and accounting income and necessary supplementary records should be maintained. Practicing accountants must carefully insulate their position of independence in preparation of certified statements from the position of advocacy sometimes assumed in tax matters. Recognition of the basic differences in concepts, and differentiation of the two types of professional practice, are required for the maintenance of public confidence in accounting statements and accountants' reports.

ACCOUNTING PRINCIPLES AND TAXABLE INCOME

SUPPLEMENTARY STATEMENT NO. 4*

Committee on Concepts and Standards Underlying Corporate Financial Statements

Summary

1. In the several statements of "Accounting Concepts and Standards Underlying Corporate Financial Statements" issued by committees of the American Accounting Association in 1936, 1941, and 1948, fundamental propositions concerning the functions of accounting in respect to revenue realization, costs, income, and capital were set forth. The objective in so doing was to present a coordinated statement of principles and suggested applications representing levels of accounting practice "departures from which should be viewed with concern."

2. Under the tax laws of the United States, Congress has enacted taxes on the net incomes of corporations.[1] In the enactment of these laws and in their administration, by regulation or as a result of Court decisions, there have developed determinations of taxable income which are at variance from determinations of net income for financial statement purposes under generally accepted accounting principles.

3. These differences between taxable income and accounting net income may be classified generally into two principal categories:

(a) Differences of specification—those resulting from Congressional enactments designed to grant concessions as a matter of legislative grace or to deny or limit deductions as a matter of economic control or for purposes of raising revenue.

(b) Differences of timing—those which affect principally the time of recognition of income or of deductions, usually resulting from legalistic interpretations of the tax statutes by Court or regulative decisions (thereby setting a precedent for subsequent administration).

4. These differences result largely from differences in purpose. The purpose of the revenue laws is to establish practical formulae for the collection of taxes (and at times to regulate the economy). Financial accounting determinations of net income are designed to measure business results as they occur, without recognizing any artificial exclusions or modifications. Despite these differences in purpose, business has sometimes allowed its accounting practices to be influenced, largely for convenience, by income tax provisions. In at least one case, also, the income tax law has undertaken to decree the procedures of financial reporting.

5. The Committee has undertaken to examine these conditions for the particular purpose of dealing with the following questions:

(a) Recognizing that the purposes of defining a base for income taxation and of measuring net income for published financial statements do differ, to what extent, if at all, is it necessary or desirable for taxable income to differ from accounting net income?

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* August 1, 1952.

[1] This Supplementary Statement deals, as do others previously issued, with corporate accounting, and its conclusions do not all necessarily apply to the accounting procedures of individuals or partnerships.

(b) If such differences appear, to what extent should income tax practice be recognized in determining net income for financial accounting purposes?

(c) Should financial accounting procedures or reporting methods ever be decreed by Congressional statute?

6. The Committee's conclusions on these questions are as follows:

(a) The right of Congress to grant tax concessions as a matter of legislative policy, or to impose economic or social disciplines, or to deny deductions for the purpose of generating revenues, is unquestioned. However, neither the Congress nor the administrative authorities nor the Courts should undertake to modify the application of generally accepted accounting principles, consistently used by the taxpayer for published statement purposes, solely to alter the timing of recognition of income or expense for tax purposes.

(b) Corporate accounting practices for purposes of published financial statements should be governed wholly by generally accepted accounting principles, irrespective of measurements of taxable income under provisions of the tax laws.

(c) Accounting principles should not be formulated or public reporting methods prescribed by directives of the tax laws; the body of accounting principles and the methods of reporting should evolve from the needs and uses of the broad public interest.

Discussion

7. Since the enactment in 1913 of the first revenue act under the Sixteenth Amendment, there has been a notable and unfortunate lag in the legal appreciation of accounting principles. This was responsible for the failure to recognize the accrual concept in the early tax laws. The 1913 income tax law was largely one which, by its terms, assessed a tax against cash income. Because of the problems of interpretation of such a statute and the inequities inherent in it, the regulations and the laws in later years have given general recognition to the accrual principle.

8. The revenue acts in force from 1913 to the present time have all provided for recognition of the method of accounting employed by the taxpayer. This is presently stated in Section 41 of the Internal Revenue Code as follows:

> "The net income shall be computed upon the basis of the taxpayer's annual accounting period (fiscal year or calendar year, as the case may be) in accordance with the method of accounting regularly employed in keeping the books of such taxpayer, but if no such method of accounting has been so employed, or if the method employed does not clearly reflect the income, the computation shall be made in accordance with such method as in the opinion of the Commissioner does clearly reflect the income."

9. Despite this promulgation, there has developed a widening gap between accounting net income and taxable income. The factors which have caused these variations are:

(a) Congressional enactments granting concessions (either by exclusions of income or allowance of special deductions from income), or imposing limitations or penalties for purposes of economic or social discipline or to protect the revenues. Examples are (1) the exemption of proceeds of life insurance policies, (2) the granting of percentage depletion allowances, (3) the denial of deductions for compensation paid in violation of wage stabilization laws, and (4) the limitations of deductions for contributions to charity.

(b) Legalistic interpretations of the tax statutes by administrative or Court decisions seemingly influenced largely by considerations of cash flow, in violation of the accrual principle of accounting. These are in the form of differences of timing of the recognition of income or deductions, examples of which are (1) the taxability of prepayments for services which are expected to be rendered in the future, and (2) the denial of deductions for accruals for known liabilities of indefinite amount.

10. The tax laws are designed to effectuate a special purpose—the raising of revenue. It is wholly within the rights of Congress to prescribe its definition of taxable income and, in so doing, to specify additions to or deductions from accounting net income as it sees fit. The allowance of percentage depletion, the exemption of certain reorganizations and like-kind exchanges, the denial of deductions for interest paid to carry tax-exempt securities or to purchase single premium life insurance policies, and other similar provisions, all recognize social, economic, and political considerations without containing any suggestions that they modify business accounting concepts.

11. With such specific and intended exceptions, however, the Committee believes that the public interest will best be served if the differences between taxable income and business income are reduced, and if the general mandate of Section 41 is permitted to take precedence over non-accounting interpretations of the individual provisions of the law. The principal differences of this character involve matters of timing of the recognition of income or deductions, ignoring consistent methods of accounting used by the taxpayer or recognized as general practices. The Committee believes that, unless an important overriding consideration dictates a modifying legislative provision of the type described in paragraph 9(a), the interests of government, business, and the public, would best be served if the definition of business income subject to tax were made as nearly as possible coincidental with net income under generally accepted accounting principles; it therefore supports the view that differences of the type described in paragraph 9(b) should be eliminated by administrative regulation or, if necessary by legislation.

12. The tax laws have unduly and unintentionally tended to influence the development of corporate accounting in that to some extent legislative concessions in measuring taxable income have been adopted into accounting practice without justification in principle. An illustration of this is the instalment basis of reporting income, when the consideration is received over a period of time. There is no sound accounting reason for the use of the instalment method for financial statement purposes in the case of closed transactions in which collection is dependent upon lapse of time and the probabilities of realization are properly evaluated.[2] In the opinion of the Committee, such income has accrued and should be recognized in financial statements, even though deferred for tax purposes. Another example is the practice common during World War II of reflecting amortization of "emergency facilities" in financial statements in amounts corresponding to allowable tax deductions,

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[2] On this point, see Supplementary Statement No. 1, issued December 31, 1950. Many accountants, including some members of this Committee, believe that methods consistently applied which accomplish a full matching of costs with revenue do not violate the accrual principle even though recognition is deferred until collection. However, if collection is reasonably assured, such a delay in recognition is not, in the opinion of the Committee, the best practice. Furthermore, where such methods are employed, disclosure is usually incomplete. In any event, the so-called instalment sales method as usually applied does not secure an adequate matching of revenues and costs.

even though in some cases the expected useful life of the facilities was longer than the statutory sixty months.

13. In one notable respect, Congress has undertaken specifically to influence accounting practices by legislation, in that the law conditions the use of the LIFO (last-in first-out) method of inventory pricing upon a requirement that the valuation so determined be used for the purpose of reports or statements to shareholders, partners, or proprietors and for credit purposes. This requirement is an unwarranted and unnecessary encroachment and, in the opinion of the Committee, should be eliminated by legislation.

Statements of the Committee on Accounting Concepts and Standards represent the reasoned judgment of at least two-thirds of its members. They are not official pronouncements of the American Accounting Association or of its Executive Committee.

They shall not necessarily be reviewed as stating rules of current professional conduct or procedure. Rather, they state objectives in the development of accounting principles. Some are intended to have immediate applicability, while others forecast the general direction in which accounting may develop.

Committee on Concepts and Standards
Underlying Corporate Financial
Statements—
1952

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Maurice Moonitz
Maurice H. Stans

There are listed below the names of the six men who acted as consultants to this Committee. Although they have reviewed and criticized this Supplementary Statement it does not follow that they are in complete agreement with the conclusions, nor do they assume responsibility for them.

Carman G. Blough
Samuel J. Broad
James L. Dohr
Howard C. Greer
Earl C. King
William A. Paton

EDITOR'S NOTE

The table on page 325 of the article "Accounting for Subscription Income" in the July 1952 issue should read as follows:

Method	*First Year*	*Second Year*	*Third Year*
a. (Income when received)	$28,000	0	0
b_1. (Proration of gross revenue)	$15,000	$9,000	$4,000
b_2. (Proration of revenue after selling costs)	$20,833	$4,833	$2,333
c. (Reserve for fulfillment costs)	$20,800	$4,800	$2,400

COLLEGE INSTRUCTION—A STUDENT'S VIEWPOINT*

JAMES RAPTIS
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A COLLEGE, as I see it, is a school of higher education which is organized to provide instruction and study in the higher branches of learning. The focus of the college should, therefore, be on the education of its students, for theoretically this is the basic motivating force behind its organization and existence. And through what means do colleges educate their students? Why through instructors, of course. Therefore, it is the duty of a college to equip itself with the best instructors its budget will allow. However, I believe that many colleges do not make an adequate attempt to furnish the students with the proper type of instructors. The proper type of instructor, among other things, is one who can communicate to his students various concepts, philosophies, the desire to learn, procedure, and a whole host of other material.

A student was asked what he thought a good instructor was, and he answered: "He must suggest rather than insist, inspire rather than dominate, direct from behind the scenes in such a way that the idea and the ensuing action emulate from the student rather than him. He must be a perpetual student, for which two indispensable traits are curiosity and imagination. He is the motivator of the intellectual scene. He does not teach ideas, he teaches students to have ideas. If, at the end of a course, a teacher can feel that he has fired the imagination of his students so that they will go on where he left off, of their own accord and without his guidance; if he has in some small measure taught habits of concise and independent thinking, then he can feel that he has imparted some of his own desire to learn. It is not knowledge which a good teacher gives but the desire for knowledge, not ideas but the love of ideas. These intangibles last a lifetime, while most of the subject matter of any course is forgotten in less than a year."[1] Yes, this student knew what he wanted in an instructor, but how many really measure up to his qualifications? Perhaps there will be a rather large percentage who will not have these characteristics. But such a percentage, however large it may be, can be reduced with a real concentrated effort on the part of the school administration. In the past, there have been very few serious attempts by colleges to study *teaching effectiveness* of their instructors, and more discouraging than the scanty attempts at such evaluation is the apparent widespread lack of concern with the problem. "The effectiveness of college teaching and administration is somewhat like Mark Twain's oft-quoted quip about the weather: Everybody talks about it but nobody does anything about it."[2]

SOME SHORTCOMINGS

The reasons why inadequate college staffs exist are many and, therefore, they cannot all be mentioned in this paper. However, there are three categories of in-

* Mr. Raptis' paper, "College Instruction—A Student's Viewpoint" was awarded first prize in the American Accounting Association's 1952 Student Prize Essay Contest.

[1] Allen A. Smith, "He Who Can, Teaches," *Journal of Higher Education*, June, 1945, pp. 325 ff.

[2] H. H. Remmers and D. N. Elliot, "The Indiana College and University Staff-Evaluation Program," *School and Society*, May 10, 1949, pp. 168–171.

structors which I should like to discuss with you.

The first category includes those who are research-minded. I am not opposed to research-minded instructors. On the contrary, I admire and support them. What I do dissapprove of is the relative emphasis that some instructors place in research in comparison to their educational responsibilities. The group of instructors that I criticize is that minority that allows their teaching to suffer in various ways in order that they may advance further in their field of endeavor. To this minority, teaching is a sideline. Personally, I believe that teaching should be of major importance and research should be the sideline. After all, if a college hires an instructor as a teacher he must, above all things, perform his duty as a teacher. Few of these instructors do not realize that they are morally responsible to the students yet much of the time they are satisfied to act as research specialists.

Here again, colleges are sometimes at fault. In some schools the scholar-teacher is not as welcome as the research-minded professor. Some colleges hire Ph.D.'s in the hope of obtaining outstanding researchers and have little regard for their teaching capabilities. Frequently they employ teachers whose only qualifications for teaching is a Ph.D. degree representing specialized research training. Schools that follow such policies are often sacrificing teaching ability in order to obtain researchers for school prestige. An administrative viewpoint, which may or may not be typical, was expressed by an instructor when he addressed his class saying: "We have one of the most noted undergraduate schools in the country because of the big men who have taught here." Upon hearing this statement I said to myself, "What difference does it make if they are big men or not? Can they get the material across to the students?" That is my main interest. Too often we find that there are big men, or "brains," on the faculty who cannot, or will not, teach or stimulate the students. From the student viewpoint, what good are they as educators?

The second category of instructors who have many shortcomings is the part-time instructional group. Here, again, I am not condemning part-time instructors simply because their being teachers is a side-line activity. The instructors of which I disapprove are those who insist on teaching part-time even though they have little or no time at all to prepare themselves for the task of teaching. Undoubtedly, a large number of part-time instructors also have employment elsewhere. Thus, teaching is an occupation carried on aside from, or in addition to, one's regular occupation. Consequently, these instructors have little time to arrange their lesson plans, or otherwise prepare themselves for their class instruction, yet in this category we often find trained men in their respective fields who have been called upon to convey their "knowhow." Examples of such instructors are, Certified Public Accountants and lawyers, or maybe a statistician or a local industrialist.

The third and final category is that of graduate students. In many colleges throughout the nation, graduate students are called upon to instruct college classes, and often times to do so in fields other than of their specialization. Frequently colleges hire these students to teach without really testing their teaching capabilities. These students may never have had any experience in teaching. They are hired merely on the basis of their personality, interest in their field, the results of their undergraduate studies, and low cost of their services.

I do not want to appear to be condemning all graduate student instructors, or all part-time instructors, or even research-

minded professors. The group at which my sights are aimed is that minority of teachers in each category which, through negligence or lack of ability, will not or cannot put the material across to the students, or inspire them to yearn for knowledge. I realize that in the three categories of instructors which I have listed, exceptional, outstanding personalities in the field of education are to be found; whether they are recognized as such or not, they have my blessing! Among graduate teaching assistants for instance, you will find many who will not take their teaching abilities for granted. Instead they will strive to improve the methods and quality of their teaching. Among these sincere graduate students are found personalities who do a marvelous job of teaching. They often are an inspiration to their students.

ABLE INSTRUCTORS—THEIR CHARACTERISTICS

One of the primary concerns of any college is to maintain an adequate and well qualified teaching staff, and the purpose of this section is to set forth some of the characteristics of such qualified instructors. For seldom, surely, will an instructor be found who will possess all the desired qualities. But department chairmen and college deans should at least strive to obtain such utopian instructors.

In a survey taken of over 6,600 students at Brooklyn College, the students were asked to test the attributes of instructors most important to them. The five most mentioned attributes are as follows:

1. The systematic organization of material.
2. The ability to explain the material clearly.
3. An expert knowledge of the subject.
4. The ability to encourage thought.
5. An enthusiastic attitude toward the subject.[3]

[3] Wesley J. Lyda, "Some Factors In The Improvement of College Instruction," *The Educational Record*, January, 1952, pp. 91 ff.

Below is another list of characteristics and qualifications of able instructors which I have compiled. The list is by no means complete but it is fairly representative.

1. He should be a healthy and exciting human being.
2. He should be concerned with the problem of a liberal education.
3. It is desirable, but by no means essential, that he possess a Ph.D. degree.
4. He should keep up with recent scholarly publications in his field.
5. He should not be lazy, conceited, impatient or indifferent.
6. He should make an effort to connect what goes on in class with the real world.
7. He should not jump from one thing to another in an illogical manner.
8. He should have a sincere interest in his students.
9. He should do independent research and publish his findings or theories from time to time.
10. He should be familiar with fields of learning which are closely related to the subject matter he is teaching.
11. He should be familiar with basic trends in education in general.
12. He should have a sound philosophy of life. This is very important for some of the teacher's philosophy "rubs off" upon the student and if his outlook on life is indifferent, it may have disastrous effects upon his students.
13. He should be able to select, organize, and interpret relevant material.
14. He should possess high integrity.
15. He should instruct with sincerity, enthusiasm and impartiality.
16. He should devote as much time as possible to individual counseling and encouragement.
17. He should be capable of seeking out the intellectual potentialities of his students and be capable of teaching at such a level.
18. He should be a dynamic personality who inspires his students with a passion for learning and with zeal for a life of constructive usefulness to society.
19. If possible, he should have had actual experience in his field of specialization since
    a. This gives him first-hand information of current practice.
    b. This gives him the confidence and poise of a man dealing with a subject matter

he has mastered in practice as well as in theory.

c. It gives him added prestige with students.

The superior instructor must possess a goodly number of these various qualities and characteristics. When he does, he begins to measure up to student's expectations. And they, in turn, will respond with the reward of enthusiasm for their studies. A most remarkable man is our modern "Mr. Chips!"

TRAINING AND EVALUATING INSTRUCTORS

Knowledge, if channeled "correctly," can seldom be of harm to anybody, and a knowledge of the art of teaching certainly cannot harm the teacher. Teaching techniques can sometimes be learned by observation of competent teachers, although the learning is probably less effective when observation is not accompanied by some theoretical training in which the reasons for using particular procedures or techniques are discussed. Therefore, it is my contention that instructors, and potential instructors, should themselves be instructed in the theories, procedure, and techniques of teaching. As an accounting student I am particularly interested in the interest of the accounting instructors in knowledge of teaching. I believe this can be accomplished by offering on a seminar basis a course in the science of teaching. Such a course could be carried out a week or a few days prior to the official opening of the schools in the autumn, and could continue until the desired material is covered. Possible phases of instruction in such a course are as follows:

1. Orientation
2. Platform presentation
3. Evaluating skills
4. Curriculum planning and supervision.

If there is a shortage of accounting instructors, it would be difficult, I suppose, to make such a course a prerequisite for teaching. Nevertheless, the seminar course can be strongly recommended to new staff members as well as the old. If such a course is carefully planned and has a qualified person as the instructor, it should be very worthwhile. Staff members, who at first may disdain such a course offering, may see the value of such a course and enthusiastically cooperate with those who are interested in better teaching.

Another scheme leading to better teaching which coincides very nicely with the seminar course, involves evaluating the effectiveness of an individual's instruction. There are many means by which the imaginative dean, department head, or individual teacher can measure the qualities of instruction: "The importance attached to these various types of evidences will depend on several factors, including the type of course, the maturity of the learners, and the philosophy of both the teacher and the instruction inolved. No neat formula will provide the answer. Unusual ability in one direction may easily outweigh many ineptitudes that would have condemned a more mediocre person to dismal failure."[4] Three devices which can be used to indicate the effectiveness of teaching are discussed below.

Our first indicator is that of student ratings. The Purdue Rating Scale For Instructors by means of which student ratings of teachers are obtained, has been used for over twenty years. It is used in the rating of the following skills:

1. Interest in subject.
2. Sympathetic attitude toward students.
3. Fairness in grading.
4. Liberal and progressive attitude.
5. Presentation of subject matter.
6. Sense of proportion and humor.
7. Self reliance and confidence.
8. Personal peculiarities.

[4] Ruth E. Eckert, "Ways of Evaluating College Teaching," *School and Society*, February 4, 1950, pp. 65–69.

9. Personal appearance.
10. Stimulating intellectual curiosity.[5]

There are many arguments, pro and con, as to the usefulness of student rating. Student ratings do have their weaknesses but they will furnish an indication to teaching effectiveness perhaps not otherwise obtainable. After all, the student is the only individual who really knows his own viewpoint as to what occurs in the classroom, day by day, for his advancement is the end-product of all the instructor's teaching efforts. Seriously and honestly prepared student ratings should help to promote good teaching and can stimulate instructors to improve the quality of their classroom work.

The second indicator of teaching effectiveness is ratings by fellow instructors or administrative officers based upon actual classroom observation. Here, however, one is treading upon dangerous ground since a teacher's classroom is viewed in most institutions as his private domain. Such a rating policy could only be established through shrewd planning on the part of the administrative officers.

The third indicator is that of group testing. A comparison of the standings secured in departmental examinations by students in various sections which are taught by different instructors, will tend to indicate which instructors' students have progressed the most. To make such test comparisons more credible, student raw material in each of the sections tested must be somewhat uniform.

There is another attribute of the instructor besides his teaching effectiveness which should be evaluated. A faculty member performs all kinds of services other than teaching which need be considered in appraising his contribution to college life. These other duties should not be minimized in evaluating a faculty member. They include student counseling, community service, creative research, administration work, and contributions to various committees.

CONCLUSION

Three quotations seem to summarize the contents of my paper much better than I could myself:

"The way in which the school is organized, the design of its educational program and its administrative practices have little justification except as they stimulate and facilitate educational progress."[6]

"Until teaching is raised to a position equal in importance, in prestige, and in rewards to research, no amount of manipulation of titles of courses or requisites will make much difference."[7]

"Judgment as to teachers' success must rest with some responsible individual or group of individuals. No test, rating scale, or other device will furnish definite answers to questions of faculty selection, retention, and promotion. Their function is simply to increase the array of evidence so that some competent individual or group of individuals can reach a sounder judgment on these matters than they otherwise would."[8] Measured against these criteria, standards of instruction at the university level fall short of desirable goals.

Yet my college training has been wonderful. While I cannot overlook all the good things I have received, I wonder: Could it have been even better?

[5] H. H. Remmers and D. N. Elliot, "The Indiana College and University Staff-Evaluation Program," *School and Society*, September 10, 1949, pp. 168–171.

[6] Wesley J. Lyda, "Some Factors In The Improvement of College Instruction," *The Educational Record*, January, 1952, pp. 91 ff.

[7] Glen A. Reed, "Fifty Years of Conflict In The Graduate School," *The Educational Record*, January, 1952, pp. 5 ff.

[8] Ruth E. Eckert, "Ways of Evaluating College Teaching," *School and Society*, February 4, 1950, pp. 65–69.

LIMITATIONS ON THE SIGNIFICANCE OF INVESTED COST

GEORGE O. MAY
Price Waterhouse & Co.

It is gratifying that the differences of opinion on the subject of Changing Concepts of Business Income have not taken the form of a conflict between the views of the practicing and the academic accountants. All the academic members of the Study Group which issued the recent report under that title (The Macmillan Company, 1952) joined with a two-thirds majority of the practicing members in approving the conclusions reached. The report of the Committee on Concepts and Standards of the Association, published in the January issue of the REVIEW, follows much the same line as that of the Study Group but goes rather further on some points and not quite so far on others.

A different view—one widely held—of the significance of "invested costs" is reflected in an address delivered by Professor A. C. Littleton which was delivered before publication of these reports but was first published in the April issue of the REVIEW.

I read it with regret that I could not give to the views expressed the same large measure of agreement which I had been able to accord to the author's *Evolution of Accounting to 1900* and to the 1940 revision of *An Introduction to Corporate Accounting Standards*, in the preparation of which he cooperated with Professor Paton. In the final chapter of his historical work (p. 361), Professor Littleton wrote:

"Accounting is relative and progressive. The phenomena which form its subject matter are constantly changing. Older methods become less effective under altered conditions; earlier ideas become irrelevant in the face of new problems."

ACCOUNTANCY IN THE NINETEENTH CENTURY

In a chapter dealing with cost accounting he had noted the evolution of accounting in the two paragraphs as follows (p. 350):

"In manufacturing, the center of thought is converting materials and labor: in commercial undertakings the center of thought is exchanging existing goods. Double-entry bookkeeping developed as a complete system in an era of exchange transactions and until the nineteenth century remained in an atmosphere of exchange. So long as exchange was its purpose and its environment, bookkeeping expressed many expenditures for services as temporarily withheld deductions from capital—that is, practically as losses. With the advent of manufacturing, however, such expenditures as labor and services acquired must be regarded (with concrete materials) as property-elements awaiting conversion; they represent investments of capital rather than suppositional losses of capital. This was a new view for bookkeeping.

So long as bookkeeping was associated in the minds of its users wholly with commercial (i.e., exchange) transactions, it would be difficult to see a reason for, or a method of, interjecting manufacturing, or nonexchange, transactions into the closed system. These non-commercial transactions would, in these circumstances, most naturally be dealt with in independent and separate analyses of the total commercial expenditures and would be put to the test of agreement in total with the key figures from the double-entry records. This is just what Payen and Norton both describe. The later appearance of a complete coordination of commercial and manufacturing elements, such as Garcke and Fells wrote about, must therefore be taken as evidence of the growth at about this time of a broader conception of the possibilities of double-entry bookkeeping as an administrative instrument."

THE TWENTIETH CENTURY

The present century has seen an amazing development in administrative accounting. The same is true of the recording techniques of accounting. It is surprising that so little advance has taken place in what I have sometimes called financial accounting, although perhaps investor-ownership accounting would be a more descriptive phrase.

In his historical work Professor Littleton expressed the view, which had been earlier put forward by Professor Hatfield, that accounting made little headway in the four centuries that followed the exposition of double entry bookkeeping by Paciolo in 1494 and that the new impulse came from the development of a need for investor-ownership accounting as a result of the great expansion of corporate enterprises which, in turn, was the result of the rapid extension of the factory system and mass production.

He also made it clear that provision for property exhaustion in the case of the earlier corporate enterprises, such as the railways, was based on the theory that the burden to be met by revenue was the cost of maintaining, renewing and replacing capital assets, and that the concept of amortization of cost began to be put forward in the industrial world only in the last twenty years of the nineteenth century.

During that period there appeared a work on depreciation by Mathiesen, the discussions of factory accounts by Norton and by Garcke and Fells, already mentioned, and the works on auditing by Pixley and Dicksee. American practice at that time, generally speaking, followed the English but was less articulately expressed.

In the *"Introduction to Corporate Accounting Standards,"* (p. 23) we find the following encouraging statement:

"The assumption that recorded dollar cost continues to represent actual cost permeates accounting thought and practice, as it does the law. Accounting, in other words, assumes a stable measuring unit. In periods of major price movements this assumption is clearly invalid for certain purposes, as has been pointed out by various writers in recent years: Undoubtedly interpretative accounting faces a challenge at this point."

The challenge that was to be heard in 1940 is more insistent today. Professor Paton seems to be more than willing to accept it. In his recent address Professor Littleton, while recognizing it, apparently takes the position that accountants should leave the task of meeting the challenge to others.

In the papers submitted to the Sixth International Congress of Accounting in June which dealt with the subject of fluctuating price levels in relation to accounts, there seem to be a general recognition of the fact that accounting faces a new problem as a result of the inflation during the last half century and particularly during the last decade.

Surely the most important question for the corporate investor today is how far the profits which are reported to him reflect the result of healthy activities measured in units of approximately equal purchasing power and how far they reflect only the illusory profits of monetary inflation. The question is one which can be answered only by the application of accounting techniques.

It would be unfortunate if the accounting profession should be deterred from undertaking the task of answering this question by reluctance to break what is believed to be an historical tradition. It would be doubly unfortunate if the belief itself should prove to be unfounded.

On the basis of sixty years experience in accounting and of the reading which I have done, especially in connection with the report of the Study Group, I believe

that the so-called historical cost tradition is not traditional.

In the course of the most extensive paper submitted to the International Congress, Mr. C. Percy Barrowcliff said at page 13:

> "Accountancy practice in this country over the past seventy years has been firmly wedded to original costs."

Since monogamy prevails in the country in question (Britain), I think the words "firmly wedded" are inappropriate. Certainly no promise to forsake all others and cleave only unto cost was a part of the marriage contract. Accounting practice has never forsaken value there or here.

At the First Congress of Accountants in 1904, A. Lowes Dickinson, whose services to accountancy were recognized at the last annual meeting of the American Institute of Accountants, read a paper on the "Profits of a Corporation" which I was privileged to hear. In that paper Dickinson made it clear that while accountancy was looking more and more to cost, it could not ignore value. The fact was that, as his paper made clear, income was being determined in varied ways, both in England and America. To illustrate, railways provided for property exhaustion on the basis of the cost of renewal. In mining and industry the methods employed were governed largely by the articles of association of the companies and amortization of wasting assets was not required. It is necessary to bear in mind that until 1855 or even 1862 incorporation with limited liability was not easily effected in England. As a result, industrial partnerships or associations with unlimited liability developed the practice of limiting their liability by contracts with those from whom they bought or borrowed.

When incorporation with limited liability became general, articles of association took the place of these contracts, and stockholders were, broadly speaking, free to treat as distributable profits what they chose to describe as profits, so long as they did not violate their articles of association or distribute what had been contributed or earmarked as capital.

The Act of 1862 contained model regulatory provisions which were optional, one of which provided that no dividends should be paid except out of profits arising from the business of the company. This clause tended to bring about the development of rules of general application for the determination of "business profits," but always the question "What was the business of the Company?" had to be answered in order to determine whether the rule had been violated.

In Dickinson's paper of 1904 and his *Accounting Practice and Procedure* published in 1913, there can be observed a recognition of a distinction between profits in the broader sense and distributable profits in the narrower sense. On this point, the following passage is particularly significant:

> "This definition would permit any business concern to revalue periodically the whole of its assets and liabilities and to record the difference between its surplus so ascertained at the commencement and the end of the year as its Profit or Loss, respectively; and provided that this estimate were fairly and reasonably made, there would be no objection to such a course. In other words, every appreciation of assets is a Profit, and every depreciation a Loss; and in many private concerns this method, technically known as 'single Entry,' of ascertaining Profits has been regularly adopted for years without bad results. A corporation, however, being endowed by Statute with special privileges is subject to special restrictions, among others that of a definite fixed Capital Stock upon which dividends are declared out of the Profits of the undertaking. Hence, the consideration of Profits as applied to a corporation involves the consideration also of the limitations placed either by law or by sound principles of accounting upon their distribution as dividends. It is in the legal interpretation of the term Profits of a corporation (which has come to mean Profits available for dividends), and in the distinction between the strictly legal and

conservative accounting view of the principles upon which they should be ascertained that the difficulties of the subject chiefly lie."[1]

MATCHING COSTS AGAINST REVENUE

The notion of matching costs against revenue has undoubted usefulness as a first approach to a theory of income determination but it is not adequate as a complete theory. Among its weaknesses for this purpose are the following:

1) Acquisition prices depend on the nature, quality and quantity of goods acquired. It is seldom that goods are sold in the same condition and the same quantities in which they are bought.

   In mining or manufacturing, products of different quality or character result from the same process. In flour milling the product that requires the most effort to produce is actually the least valuable. Where goods are bought in bulk and sold or used in small quantities it is not acceptable to assume that the proper charge against the proceeds of sale can be determined on a unit cost basis; it may be convenient to do so tentatively and to make any necessary revision later by allowances in taking inventory.

   The cost-or-market rule for inventories, properly applied, does this. However, some who uphold the historical cost tradition either reject that rule altogether, or treat it as involving a reservation of realized profit to provide for a future loss. The more modern statement of the cost-or-market rule takes the form that only *useful* costs should be carried forward and that costs that cannot be realized should not be regarded as useful. It attains the result the cost-or-market rule was designed to meet and is, I believe, a necessary modification of the historical cost concept.

   It may be said that nearly all manufacturing costs are joint-costs to some extent since the cost of each unit depends on what and how many other units are produced.
2) In the case of physical capital assets that are consumed in operation, there is a constant process of partial replacement or renewal so that there are at any moment two sets of costs that have become matters of history, the cost of property replaced and the cost of the property that replaced it. To determine what should be charged against revenue, a subjective choice between these two types of cost is necessary and that choice in practice varies from industry to industry and from one class of property to another. What *proportion* of a cost shall be charged against a particular period is always a matter of subjective determination.
3) The time intervals between the incurring of costs and their being matched against revenue vary greatly and may be so great as to destroy the significance of the acquisition cost. This weakness becomes more pronounced the more prices change.
4) The strict historical cost method makes it easier for managements which wish to distort results to do so by choosing whether transactions shall or shall not be entered into and the precise form that they shall take.
5) A transaction to which the accounting entity is a party does not necessarily provide objective evidence; often a transaction between two parties, neither of which is the accounting entity, may be more reliable and objective.
6) Events as well as transactions materially affect income and financial position and there is seldom any objective measurement of the financial effects of events.

"ORIGINAL COST" ACCOUNTING

The concept of an accounting for investment costs has found its most nearly complete embodiment in the "original cost" accounting that has been imposed on utilities by Federal agencies. In this case, it is cost to the enterprise rather than cost to the corporation that controls. This concept, evolved during the last fifteen years, is already facing the test of a period of inflation and does not come well out of the test. A large part of the cost of making good exhaustion is being provided out of capital, upon the assumption that regulation will always protect that capital and in the hope that future advances in the art will lighten the burden so that the consumers of the future will be content to bear it.

[1] *Proceedings of the Congress of Accountants*, 1904, p. 172.

THE WRITE-UPS OF THE 1920's

In discussions of the cost concept references are frequently made to the "write-ups" during the 1920's but apart from the Utility Holding Companies they had little adverse effect, though in my judgment, then and now, they were not the right way of adjusting depreciation charges upward which was, as Montogmery said, desirable. We should, I believe, have been better off over the whole period from 1916 to 1936 if we had then distinguished clearly the part of income or losses that reflected only changes in price levels, as the Study Group now proposes. During the first World War some companies, such as U. S. Steel Corporation, did in effect place their accounts on a LIFO basis and supplemented their exhaustion charges based on cost in their income accounts by additional charges in respect of price inflation. In this way they mitigated the effects of the decline in prices in 1920–1921.

THE ACCOUNTANT'S OBLIGATION

The independent public accountant elected by stockholders owes a duty to investors to secure a definition of income that is as significant as possible in relation to conditions that exist, and to warn them of the unsoundness or limitations of the concept that is being reflected in the accounting reports submitted to them. I do not think that obligation is being adequately recognized or discharged today. The separation of the reported income into two components as suggested by the Study Group, either in formal accounts or in supplementary statements passed upon by the accountant, would, I suggest, constitute the minimum of fulfillment.

There is a need today for a coordinated effort to develop and expound a concept of business income and forms of presentation that will accord with the realities of business. "Income," without any qualifying adjective, is fast becoming, if it has not already become, a political concept, and the business professions cannot expect to be granted the right to define it. There is, however, no reason why they should not undertake the more limited task of defining "business income," meaning income as it is conceived in the best business practice. In the work to be done, academic, administrative and practicing accountants should join together and seek the cooperation of other business professions.

There is also need to make clear to the public what financial statements, as now presented, do not provide, and to make up some of the deficiencies. The information needed is essentially of the same character as much on which accountants do now pass and of equally great importance. Not all accountants will be qualified to render the additional service needed, but neither are all of them qualified to cope with all the responsibilities now frequently assumed. Accounting, like law and medicine, must become a profession in which all practitioners must have a certain minimum of competence in every field, but few if any, will be equipped for every task the profession will offer.

CHANGES IN MONETARY VALUE AND PROBLEMS OF CONVERSION

J. M. Yang
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The traditional basis in the accounting of assets and expense is cost which in the main represents the actual price paid for various resources—facilities, goods and services—necessary for the conduct of business. During recent decades the trend of accounting thought has been toward a more general acceptance of cost not only as a basis of initial entry but also as a basis of periodic statement of value. This is natural perhaps in view of the increasing emphasis placed upon the operating aspect of business and the growing eminence of the income statement.

From the standpoint of business operation the significance which cost holds for the accountant is based on logical as well as factual grounds. The primary purpose of every business undertaking is to make profit, and in achieving this purpose it incurs cost. It is from the excess of revenue over cost that profit is derived. To the business, therefore, all assets with the exception of cash and receivables are intermediate representations of cost—investments with the ultimate object of gain. In this sense the accountant is fully justified in adopting cost as the rational basis for his entry and in following this cost in his record through the entire process of operation till it finally leaves the business in exchange for revenue. Further, the accountant, like the historian, stresses objectivity in so far as objectivity is obtainable, in gathering data for his record; and in the absence of evidence to the contrary, the price paid for resources represents to him the correct amount of cost—an assumption which is borne out by facts in the vast majority of cases.

EFFECT OF CHANGES IN MONETARY VALUE

Unfortunately the value of the monetary unit in terms of which cost is stated does not always remain stable, and in fact, significant changes have taken place during recent years as indicated by the price levels. In the event of persistent changes in the value of money, the time factor becomes important. Where cost can be liquidated through revenue as fast as it is incurred, cost and revenue will be stated still in dollars of equal value. Evidently, except in an extremely simple business such as peddling, no day-to-day liquidation of cost is possible. In a typical enterprise numerous assets are acquired which last for long intervals of time or far in advance of actual needs. The effect of monetary variations is especially conspicuous on such assets as land, buildings, equipment, machinery and to some extent also on inventories of merchandise, materials, semi-finished and finished goods. These assets, according to conventional accounting methods, are each recorded at their respective costs expressed in dollars as of the dates of their acquisition or the acquisition of the factors of which they are composed. It is only after more or less lengthy intervals of time that their cost will enter into expense and become applicable to revenue. Services such as labor, light and power etc., in so far as they represent cost of selling and administration, are more closely related to revenue. But services in aid of production will also enter into the cost of manufactured products and there is generally some lapse of time before their cost becomes the cost of sale. Following this

analysis, the revenue realized at any particular time will be stated in current dollars, whereas expense will be stated in past dollars and usually past dollars of various values because the resources consumed and constituting the expense are likely to have been acquired at different price levels. The longer the interval between the sale of product and the acquisition of the resources required for its fabrication, the wider would be the discrepancy between expense and revenue. In case of accelerated price variations, expense and revenue might be so much out of proportion that the income arrived at in the traditional manner would become misleading.

CONVERSION OF COST—OF FUNDAMENTAL IMPORTANCE

Does this suggest that cost in the historical sense has lost its significance and should be discarded? Apparently, a blind adherence to cost in the face of serious changes in price level would result in an expense figure devoid of importance. Expense and revenue stated in dollars of unequal value could no longer be used as accurate measure of operating efficiency. Nor would the difference between expense and revenue show real income, if income is interpreted as an increase in economic well-being or purchasing power. This does not necessarily imply, however, that the historical cost as a basis of accounting should be abandoned. What is really necessary is to bring cost and revenue to a comparable basis—that is, to dollars of equal value. This means either that the historical cost in past dollars should be converted into historical cost in current dollars, or the revenue in current dollars should be converted into revenue in past dollars (revenue on "if then realized" basis). In the former case income would be on current dollar basis and in the latter, on past dollar basis. These two methods of conversion would seem equally sound in point of theory, as one can say with equal propriety, in the case of an upward swing of prices, that cost is deflated or that revenue is inflated. The latter is even more in accord with the fact. However, conversion of revenue would be fraught with practical difficulty, because it would be necessary to associate specific revenue with specific cost. Further, people in general are more easily accustomed to calculation in terms of current dollars; and hence income expressed in current dollars is more intelligible. The solution of the problem, therefore, lies, fundamentally, in some method of conversion of historical cost expressed in heterogeneous dollars into homogeneous dollars on equal footing with revenue.

CONVERSION OF REVENUE—UNNECESSARY EXCEPT FOR PERIODIC COMPARISON

It has sometimes been suggested that revenue, as in the case of cost, should be converted. This step seems unnecessary. If the conversion of cost represents, as indicated above, an attempt to bring cost to comparable basis with revenue, the dollar in which revenue is stated is exactly the dollar to which the cost of all resources used in securing the revenue should be converted. Revenue represents but an abstract quantum of the resources received in exchange for goods sold or services rendered, and as such sets the limit to income. A conversion of revenue would not, therefore, serve any useful purpose as far as income determination is concerned. While it is true that during a period of sharp rise in prices the dollars of revenue realized at any given moment of time may be subsequently diluted in value unless tactfully invested, it should be observed that the investment of resources as a whole constitutes a problem entirely separate and distinct from the realization of revenue in the first instance.

However, this does not deny that con-

version of revenue may be useful for purpose of comparison between periods. From period to period the expense and revenue are likely to be stated in dollars of different values and unless these figures are reduced to common dollar basis, the comparison of operating conditions between periods might be meaningless. This is generally true of comparisons between years, but may also be true of comparisons between months during the same year. Where monetary fluctuations are violent, figures of expense and revenue are liable to vary considerably from month to month. In such a case it might be necessary to determine the income for each month during which the monetary value is relatively stable. If this is done for comparison between months, the monthly figures of expense and revenue should each be converted to dollar values at the end of the year, and for comparison between years the annual figures of expense and revenue as arrived above should again be converted to the dollar values at the end of the year just closed.[1] But whatever conversions may be necessary for comparison between periods, they are to be made outside of the accounting records and the regular income statement. It should be observed, further, that the conversion of expense from original dollars to the dollars in which the related revenue is expressed, as noted above, is always of primary importance and should be undertaken before the expense data are converted for comparative purposes.

ACCOUNTING SIGNIFICANCE OF COST CONVERSION

Through conversion all elements of cost involved in production, selling and administration will be brought into homogeneous dollars of the same value as those in which revenue is expressed. In the event of continuing rises in price level, cost of production will be consistently marked up and this increase in dollar cost as a result of conversion will represent, pending the accrual of revenue, an unrealized differential due to decline in the value of money. After revenue is accrued, this differential will be deducted from revenue and become realized. Further, any increase in dollar expense resulting from direct conversion of the cost of all resources consumed at the time revenue is accrued will be similarly deducted from revenue and enhance the total of the realized differential. This differential, assuming that the procedure of cost conversion has been systematically carried out, will represent the amount in current dollars necessary to maintain the purchasing power of the funds invested in the resources consumed in securing the revenue and not income in the strict sense. From the standpoint of accounting, therefore, the final effect of cost conversion is a splitting of revenue and segregation from income the element which corresponds to a recovery of inflated cost. If the change in the value of money is at all serious, such a step would prove of great importance because it would place cost and revenue on a common dollar basis for the measurement of operating efficiency and the formulation of rational policy with reference to dividend distribution.

CONVERSION OF "INVESTMENT" ASSETS—GENERALLY DESIRABLE

If the purpose of conversion is merely to bring cost to comparable basis with revenue, the computation may, conceivably, be limited to the cost of resources actually entering into business operation; in other words, cost of resources may possibly be converted only as they are utilized and the cost of resources which remain in their original form may be left on the historical

[1] Where monthly variations are negligible, it is possible to effect a direct conversion of the total actual expense and revenue of each of the years under comparison to dollar values at the end of the year just closed.

basis. Such a procedure, however, while adequate from the standpoint of income determination, would be inadequate for a correct statement of financial condition; in general, it is desirable to extend the scope of conversion to include the data to be exhibited on the balance sheet. This requires, in the first place, that the value of all assets be expressed in dollars as of the date of the statement. In this connection it should be observed that cash, receivables and other fixed dollar claims are automatically adjusted to current dollars and require no conversion as far as the preparation of balance sheet is concerned. It is only those assets whose value fluctuates with the change in value of money that need to be adjusted. These will comprise all the resources—facilities, goods and services—in which business funds have been invested with a view to producing revenue and they may be designated as the "investment" assets in contrast to the "dollar" assets like cash and receivables. Most of these investment assets will sooner or later find their way into the cost of business operation and are, therefore, in the nature of potential costs. In view of this fact, conversion of their value is particularly useful in that it will serve to bring the value to a uniform "dollar base" (the significance of which will be explained later), where acquisitions are made in different lots, to facilitate cost computation. This is especially true of assets such as machinery and equipment whose service lives are long and units numerous, but generally true also in the case of other fixed assets and inventories.

Since assets represent resources on hand as distinguished from those consumed in business operation, any write-up in their value as a result of conversion must be considered as unrealized differential due to the change in value of money. Only as the assets expire and enter into expense, will the unrealized differential associated with the assets form a part of the deduction from revenue and become realized.

WHAT THE CONVERSION OF "DOLLAR" ASSETS AND EQUITIES MAY ACCOMPLISH

As already pointed out, cash, receivables and other fixed dollar claims are self-adjusted to current dollars and may be brought directly into the balance sheet without conversion. Similarly, liabilities as a whole and ordinary preferred stock equities represent obligations fixed as to the amount of dollars in which they are stated; hence their conversion is also unnecessary. However, conversion of these dollar assets and equities may be useful in revealing the loss or gain in purchasing power involved in holding these assets and owing these equities. During a period of rising prices, holding of dollar assets results in a loss of purchasing power, and owing of debts results in a gain of purchasing power. In the former case the extent of loss is measurable by the difference between the amount actually on hand and the amount which would have been on hand had the funds been put promptly into uses that would insure their growth in value in terms of depreciated dollars; and in the latter case the extent of gain is measurable by the difference between the amount actually payable in current dollars and what would have been necessary for payment in dollars of greater purchasing power had payment been made as soon as the debts were contracted. To calculate precisely the loss and gain thus involved, a cumulative conversion of balances of these assets and equities during each interval they remain unchanged would have to be made to arrive at the would-be values for comparison with the actual values. The same result may be obtained by converting separately each item of increase and decrease in these assets and equities to the end of the accounting period and comparing the actual

balance with the balance thus derived. Such calculation would, apparently entail an immense amount of work as transactions affecting these assets and equities especially those in the current group, are normally very numerous; but unless complete accuracy is desired, the conversion may be dispensed with, for loss and gain from the retention of dollar assets and equities may be determined through a simpler method as will be presently discussed.

CONVERSION OF RESIDUAL EQUITIES —NOT ESSENTIAL BUT SIGNIFICANT

Proprietorship of the typical sort represented by common stock equities is affected by all factors associated with the conduct of a business, including both those having to do with operation as such and those resulting from monetary fluctuations when full recognition of the latter is given to the assets. In view of its truly residual character, in other words, the effect of decline in monetary value will be fully reflected in proprietorship in the form of realized and unrealized differentials or surplus following the conversion of assets. It would seem, therefore, that there is no strict necessity in converting proprietorship as far as a statement of total proprietorship is concerned. However, for the purpose of indicating to what extent capital invested in terms of old purchasing power is maintained in the face of currency depreciation, there is some significance in converting proprietorship to current dollars; the conversion will disclose what additional amount in current dollars would be necessary to keep intact the purchasing power of capital invested. This information is, evidently, of considerable value from the viewpoint of both the investors and the management. As pointed out previously, conversion of assets will bring out the unrealized increase in value due to currency depreciation and when the assets are consumed and become cost of sale, the unrealized increase in value will be deducted from revenue and become realized, segregated from the otherwise overstated income. But unless the sum of these realized and unrealized increases in value of assets is sufficient to cover fully the amount necessary to maintain the purchasing power of capital invested, a loss in purchasing power will result. A contrary situation will show a gain.

This gain or loss, it should be noted, is entirely distinct from the gain or loss from business operation and is traceable to the holding of dollar assets and equities. Its conclusiveness will depend, of course, on the consistency and accuracy of the procedure of conversion of the investment assets (and cost of sale) on the one hand and of the residual equities on the other.[2] For this purpose the conversion should include all items of proprietorship—capital, surplus, reserve as well as current income or loss. When this is done, the total increase in the amount of proprietorship as a result of conversion minus the sum of the realized and unrealized differentials derived from the conversion of assets will show the gain or loss in purchasing power from the holding of dollar assets and equities. The same may also be reflected by the difference between the total value of assets in current dollars and the total amount of equities (not including the above-mentioned differentials) in current dollars.

Mathematically, this seems obvious. In a system of double-entry accounting, equality of assets and equities is constantly maintained. Now suppose all assets and equities—balances as well as transactions during a period—were converted by the same price indexes, either in a single con-

[2] Further, this method can only reveal the net gain or loss but not the gain due to the owing of dollar equities and loss due to the holding of dollar assets separately as can be obtained by the systematic conversion of the dollar assets and equities themselves.

version or a series of conversions, the resulting assets and equities would still be equal and would all be expressed in figures reflecting the automatic growth in value corresponding to the decline in value of money. If, actually, only a portion of the assets and equities (that is, the investment assets and residual equities) are converted the difference between the converted assets and equities should be the same as the difference which would obtain between the remaining assets and equities (that is, the dollar assets and equities) if they, too, were converted. This would-be difference, when compared with the actual difference between the dollar assets and equities, will reveal the gain or loss in purchasing power. Consequently, the difference between the sum of the converted and unconverted assets on the one hand and the sum of the converted and unconverted equities on the other, will also produce the same information.

MEASUREMENT OF CHANGES IN VALUE OF MONEY

Thus far we have been primarily concerned with the scope and significance of conversion of the different classes of accounting data. Attention will now be given to some of the major problems with which the accountant would be confronted in carrying out the actual work of conversion. Of these problems the first and most fundamental would be to look for a satisfactory basis of measurement of the changes in the value of monetary unit. It is easy enough to say that the dollar is not what it used to be, but the accountant cannot be satisfied with such a general statement; for his records and statements he would want a measurement which is sufficiently accurate and objective so that he can use it consistently. Herein lies, perhaps, the cause for the dilemma in which the accountant may find himself in the face of major changes in the value of money. The unadjusted historical cost may be known to be losing ground as a correct index of cost of operation; yet there seems to be no alternative basis sufficiently accurate and objective for him to follow in translating the figures of his records. In this matter he proceeds cautiously, not willing to part with the old ways until he is sure of the new. This aversion to change is especially strong when the evil of monetary fluctuation is yet relatively small as compared with what, it is dreaded, might inhere in an alternative method of dealing with cost whose accuracy has not been tested.

Obviously, the only way the change in value of money can be measured is by means of an expression of its purchasing power as reflected by the price level. A decline in the purchasing power of money is indicated by a rise in price. But prices of all goods do not rise in perfect unison nor in equal proportion; hence an accurate measurement of the change in purchasing power of money is always difficult to obtain. A rise in prices of the specific assets employed by a business enterprise can not be taken as an accurate measurement, because specific prices are likely to be affected by factors other than pure decline in the purchasing power of money, such as changes in conditions of supply and demand. Further, specific prices would be synonymous with costs of replacement which, though sometimes recommended, are objected to on the ground that they represent future rather than present costs. For relative accuracy the measurement of purchasing power must be based on a composite average of prices of a sufficiently wide range of articles; and in this connection the general price index, theoretically, fulfills the purpose. In the general price index, it is presumed, factors other than the pure change in value of money would more or less neutralize each

other, and it compares favorably with specific prices in accuracy and objectivity.

DIFFERENTIATION OF DOLLAR BASE

Assuming that the general price index is, in principle, a satisfactory measurement of changes in the value of money, it will be necessary in converting the accounting data to differentiate the specific dollar base from which the conversion is to be made. The purpose of conversion is to bring a particular value stated in the dollar as of a certain date to the dollar of another date; and since the value of the dollar is measured by the price index, the actual procedure of conversion will consist in dividing the value by the index of a certain date and multiplying it by the index of another date. The index to be used for multiplication is always that prevailing as of the date of conversion, but the index to be used for division varies with the time of incurrence of the particular cost or obligation to be converted. Further, it often happens that a value which has been once converted to the dollar of a certain date needs to be converted again to the dollar of a later date; then the converted value has to be divided by the index of the date of first conversion before it is multiplied by the index of the date of second conversion. In both of these cases the dollar as of the date a specific value is incurred or previously converted constitutes the base from which conversion is to be made—signifying coincidently the index to be used for the division of the value involved.

Since business resources are generally acquired and obligations incurred in different installments and at dollars of varying values, observation of the specific dollar base for each asset or equity item to be converted is, evidently, of fundamental importance. In general, assuming a consistent trend in price level, the longer the interval between transactions, the wider would be the variation in dollar values in which the transactions are respectively expressed and consequently, the more important would it be to observe each dollar base for conversion. At the same time through the process of conversion the varying dollar values would be brought step by step to uniformity. In the case of fixed assets of long service lives such as plant, equipment and machinery, for example, transactions of additions, renewals and improvements are usually very spasmodic and their history covers a good many accounting periods during which significant variations in value of money may exist. It is in these assets that the most conspicuous conglomeration of dollar values is generally found. Through systematic conversion the varying dollar values can be brought to uniform dollar bases to facilitate subsequent conversions and the computation of depreciation. Further, in the manufacturing process the identity of costs of materials, supplies, labor, etc., is oftentimes mixed and the dollar bases of the respective costs become thereby indistinguishable. In such cases and where current information regarding effective cost of production is desired, interim conversion of costs during each process of fabrication should be made in order to bring all elements of costs as soon as possible to identical dollar bases for further conversion in later processes untill current dollar cost finally emerges with the completion of the product. Apparently, a single conversion at the time of completion would not produce an accurate result, for the dollar bases of resources used would not be homogeneous.

PROBLEM OF CONVERSION OF INDIRECT COSTS

The major purpose underlying the conversion of assets being to bring cost incurred progressively to current dollar

levels to match revenue, the procedure of conversion, as far as a manufacturing enterprise is concerned, would consist of two principal stages—production and selling. In production, theoretically, all elements of cost should be converted and converted cost cumulated to the point of completion of production; and in selling, all resources consumed in effecting the sale should be converted to the point of sale. Practically, however, in both of these stages there is the problem of indirect cost which cannot be associated with any particular production or selling activity and hence cannot be converted with specific reference thereto. In conventional cost procedure, the handling of overhead has always been a difficult problem and the step followed is generally one of proration of total periodic cost on some logical basis to the products concerned—the practical effect being an absorption of total cost in total production of the period. Similarly, at the selling end, direct association between cost and revenue is practicable only in the case of the merchandise cost of sale and a few items of direct selling expense, all other items of selling and administrative expense being of such an indirect nature that they can be compared with revenue only on a periodic basis.

In these cases the accountant has to make two important assumptions: that the value of money changes gradually and uniformly from day to day during the period and the production and selling activities spread also more or less uniformly in point of time. Indirect costs may then be divided into current and fixed groups, the former representing costs of currently acquired goods and services and the latter representing the expired cost of plant and equipment and other amortized charges. Current costs are incurred piecemeal and at dollars of gradually changing value, while fixed costs are incurred in lump sum and at dollars with relatively greater variance in value. In so far as current costs spread uniformly throughout the period, they would be expressed automatically in dollars synchronizing in value with the dollars to which the direct costs are converted and hence their conversion would be unnecessary. Of course, perfect synchronization does not exist actually, because few current costs are incurred with exact uniformity as to time, but with limited exceptions and during an extended period, sufficient uniformity may be assumed. With reference to fixed costs, conversion may be made to the average dollar value of the period, or the dollar value as of the middle of the period. However, in making allocation of manufacturing overhead to the products, the charge should be varied according to the time during which they are processed, with total allocation for the period approximately equal to the total converted cost. Current costs paid at irregular intervals may be handled somewhat in the same way as fixed costs.

PERPETUAL VS. PERIODIC CONVERSION

The procedure of conversion should be ideally, of a perpetual character; that is, every increase of asset (or equity) that needs to be converted should be converted from its specific dollar base to the dollar base of every succeeding increase so that its balance may be brought continually into current homogeneous dollars and that every decrease of the respective asset, assuming the average cost to be used, may be stated in terms thereof at the time of the decrease. Such a procedure, aside from the amount of work involved, would be advantageous in a number of respects. First, it would insure complete accuracy of computation because changes in dollar value are followed up specifically. Second, currently available costs expressed in up-to-date dollars would be of considerable importance to management in case of drastic

changes in price levels. Third, in a system of perpetual conversion, a complete record would necessarily be kept of the converted figures and resulting dollar bases from successive computations, which would make the work of conversion verifiable in detail. An important objection to perpetual conversion is that the work involved in making the frequent calculations and entries would be prohibitive; and it seems that no matter how the accounting technique may be improved, this consideration would remain a serious obstacle to its complete adoption.

An alternative procedure would be to leave the accounting data from day to day on the conventional dollar basis and to effect conversion of the recorded data periodically. Practically, such a procedure would aim at converting periodic totals of transactions wherever possible. While labor-saving, conversion of periodic totals would involve, inevitably, some sacrifice of accuracy, although in the absence of major price fluctuations, the inaccuracy may not prove intolerable. It should be noted, further, that conversion of periodic totals cannot be applied to all assets and equities, but only those in which transactions occur frequently and more or less uniformly during the period. These would include, in general, assets which are currently acquired, fabricated, completed and sold in a continuous stream of transactions, such as merchandise, materials, supplies, goods in process and finished goods (and current dollar assets and equities in case their conversion is undertaken). With respect to these assets, assuming that the value of the dollar changes gradually and that the flow of transactions is approximately even, the different dollar bases represented in the transactions of the period may be averaged and the periodic total may be converted with the average dollar value as a base. This virtually means that the dollar value as of the middle of the period would be used in place of the various bases actually represented, as if all the transactions had occurred during the middle of the period. Obviously, the use of average dollar value is impracticable with respect to such assets as buildings, machinery and equipment and proprietary equities as a whole, in which transactions are, as a rule, highly spasmodic and hence the dollar bases cannot be averaged. For their conversion, observation of specific dollar bases is necessary, even though the work of conversion may be done at the end of the period. In a practical situation, if the relatively active accounts can be converted in periodic totals, the work involved would be considerably reduced. It should be noted in passing, moreover, that where purchases of merchandise or materials are made in big lots at irregular intervals, each purchase should be specifically converted, while disposals, if occurring more or less uniformly, may be converted on the basis of periodic totals.

FURTHER CONSIDERATION OF PERIODIC CONVERSION

While perpetual conversion necessitates more frequent calculations the principle involved in the method of its application is relatively simple. Periodic conversion, on the other hand, in view of the numerous assumptions that are necessary for its execution, requires some further consideration. In this connection attention will be given primarily to those assets which are most adapted to periodic conversion comprising, as indicated above, most forms of the "inventoriable" assets such as merchandise, materials, etc. Assuming that a continuous inventory record is maintained on the conventional basis and all issues of goods are priced according to the Fifo principle, the procedure of effecting periodic conversion should not be difficult. Conversion is preferably effected on the monthly basis as transactions are normally liable to vary quite appreciably from

month to month, but more extended periods may be used where monthly variations are negligible.

In each case the conversion base for the inventory at the beginning of the year should be the dollar value (or price index)[3] as of the end of the preceding year[4] and the conversion base for the total additions during each month should be the average dollar value of the respective month of addition. Conversion of these goods should be made separately for the portion issued during each month and for the unissued portion at the end of the year. The dollar value to which the former goods should be converted is the average dollar value of the respective month of issue while the dollar value to which the latter goods should be converted is the dollar value as of the end of the year. The month of issue for the opening inventory and additions is the month during which they become absorbed in production or sale as shown by the records, inventory being assumed to be absorbed first and then the additions of each month in succession. This would involve, practically, the checking of the cost of goods issued each month into the inventory and record of additions to ascertain the source of stock from which the goods have been issued and then the average dollar value of the month of issue is used for the conversion of the related goods.[5] The converted value of the goods thus computed would represent their cost in current dollars for the purpose for which the goods are used, and in the case of merchandise of a trading concern this would be the merchandise cost of sale in current dollars.

In a manufacturing enterprise the same procedure of conversion applied to materials would give the figures, in current dollars, of the monthly cost of materials issued for production and inventory of materials at the end of the year. With respect to the conversion of goods in process, while the same principle should be followed, the procedure is somewhat more complex, because different cost factors are involved—materials, labor and manufacturing expense, each of which requires separate calculation. This is due to the fact that these costs generally have different dollar bases and enter into the finished products in varying proportions. Materials entering into production each month, for example, will be brought to converted dollar base as stated above. Labor cost each month will be on original dollar base because it is incurred directly in current dollars. Manufacturing expense, as explained previously in connection with indirect costs, will consist of current and fixed charges, the former being on original dollar base and the latter being converted to the average dollar value of the month. For the conversion of these costs as they enter into the finished goods, the recorded cost of completed production

[3] Since the dollar value is, by assumption, measured by the price index, the two terms are practically identical in significance and they are used interchangeably.

[4] In this and later connections it is assumed that the inventory has already been converted to dollars prevailing at the end of the preceding year. If conversion is attempted for the first time, however, the dollar base has to be traced to the date of incurrence of the cost.

[5] If, as often happens, the goods have been issued in part from inventory and in part from additions, or issued from the additions of different months, theoretically the conversion bases and values should be more specifically determined as follows: excepting the conversion base for opening inventory which should always be the dollar value as of the end of the preceding year, the conversion base for goods issued from a portion of a month's additions should be the average dollar value of a proportional part of the month of addition (as indicated by the proportion of goods issued to total additions) and the conversion value for the goods issued from each source—inventory or additions of a particular month—should be the average dollar value of a proportional part of the month of issue (as indicated by the proportion of goods issued from each source to total issues). However, such an attempt would unduly complicate the procedure and would defeat, to a large extent, the purpose of periodic conversion. Since the month is a relatively short interval, the use of monthly average dollar value for conversion is deemed sufficiently accurate for practical purposes.

Further, in exceptional cases in which goods are issued as soon as they are received, there would be no need for conversion, as the dollar base and current dollar value would be identical.

each month should be checked into the inventory and monthly additions to goods in process, to determine the respective month during which the costs are absorbed and the average dollar value to be used for the conversion. It should be observed that since material cost and manufacturing expense entering into production each month have been either wholly or partly converted in the first instance, the converted amount and dollar base should be used for their conversion into cost of finished goods. Balances of these costs to be carried as goods in process at the end of the year should be converted to the dollar value as of that date. In the same manner the opening inventory and monthly additions to finished goods (with cost of monthly completed production already converted as above) should be converted from their appropriate dollar bases to the average dollar value of the respective month of sale to determine the monthly cost of goods sold in current dollars, with the closing inventory converted to the dollar value as of the end of the year.

If conversion is to be effected on the yearly basis as in cases where transactions are practically uniform from month to month, the procedure in each case would be greatly simplified, as the conversion bases and values to be used would be reduced to a minimum. The conversion base for the opening inventory would still be the dollar value as of the end of the preceding year, but for the additions during the year, a single conversion base for the total issued portion thereof may be adopted in place of the monthly bases as before. For such a base the average dollar value for the period covered by the issued portion of additions (commencing from the date of first item of addition and ending on the date immediately preceding the period covered by the closing inventory) should be used. Then, by checking the cost of the opening inventory into the cost of goods issued the period during which the inventory is completely absorbed will be determined, and the remainder of the year will be the period during which the total additions (issued) are absorbed. Accordingly, the inventory and additions may be converted, respectively, to the average dollar value of each of the periods concerned. The closing inventory is to be converted from the average dollar value of the period covered by it to the dollar value as of the end of the year. This procedure would be equally applicable in the conversion of all forms of inventoriable assets.

Where no continuous inventory record is kept, determination of the necessary periodic conversion bases and values in the manner suggested above would largely be impossible, especially for the goods in process and finished goods in a manufacturing enterprise, unless there is complete statistical information regarding the movement of goods; because there would be, otherwise, no basis available for determining, on the one hand, the periods covered by the issued portion of additions and the closing inventory, and on the other, the periods during which the opening inventory and additions have each been issued. In a trading concern the required separation of periods can usually be made by reference to the dates of purchase and sale invoices, and hence, determination of the average dollar base for the sold portion of merchandise purchased and the average dollar values to which the opening inventory and purchases should be respectively converted is generally easy even without a perpetual inventory system. Obviously, in cases in which inventories are relatively insignificant as compared with transactions during the year, the problem of precise differentiation of periods covered by each of these two sources of stock would be of much less importance. In fact, where inventories are really negligible and transactions during the year are fairly evenly dis-

tributed, the necessity for conversion of the related assets would be greatly reduced.

SUMMARY

In view of the purpose and nature of business operation, the conventional cost theory of value stands well the test of logic and should be maintained. The disparity between cost and revenue caused by changes in the value of money does not affect the validity of cost but gives rise to the problem of conversion of cost figures to the current dollar level. The primary purpose of conversion of cost is, therefore, to bring cost into identical dollars with revenue so that real income in the sense of increase of economic well-being may be reflected and that figures of cost and revenue may continue to be relied upon as barometers of operating efficiency. This being so, revenue which sets the limit to income need not be converted as sometimes recommended, except for purpose of comparison between periods. The accounting effect of cost conversion is a segregation from income of what represents, in the case of rising price levels, but a recovery of current dollar cost necessary to maintain the integrity of economic capital. Conversion of all forms of "investment" assets such as buildings, machinery, equipment and inventories is desirable for a correct statement of value of resources in terms of current dollars and incidentally also, placing the costs of successive acquisitions of assets, especially fixed assets, to homogeneous dollar values as basis for cost computation. "Dollar" assets and equities such as cash, receivables, payables, loans and nonconvertible preferred stocks and the like are self-adjusting into current dollars and require no conversion as far as the periodic statement of financial condition is concerned. However, conversion of these assets and equities will reveal the gain or loss in purchasing power involved in their retention. In theory there is no strict necessity in converting residual proprietary equities as far as a statement of total amount of such equities is concerned, the latter being always represented by the difference between the total of assets and the total of liabilities; but conversion of proprietorship will show how far the purchasing power of capital invested is maintained in the face of fluctuations in the value of money and will reveal also, incidentally, the gain or loss in connection with retention of dollar assets and equities.

In undertaking the work of conversion the accountant will be confronted with a number of problems, the most fundamental of which is the selection of a satisfactory measurement of the changes in the value of money. On the whole the general price index seems to be, at least in principle, the most logical and objective standard for the purpose, while cost of replacement seems objectionable on the ground that it would involve a departure from the basic concept of accounting cost. The procedure of conversion is naturally more complex in a manufacturing than in a trading enterprise, on account of the large amount of plant facilities and inventories carried in the former, and this would be especially the case if production is long and diversified and turnover is slow. Because the longer the history of cost and the more varied the process through which it has to pass, the more difficult would be the effort in following the dollar bases of the items of cost to be converted. For complete accuracy or where converted data are constantly desired for managerial reference, a system of perpetual conversion would be necessary, in which the dollar bases used would, naturally, be specific. The amount of work involved in such a procedure, however, would generally be prohibitive, especially in connection with some of the highly active accounts. With a view to minimizing routine calculations, periodic conversion based on the total transactions of a period

may be adopted, and it may bring reasonably accurate results where the transactions are sufficiently well distributed to permit the application of periodic average dollar value (or price index) to the periodic total. This would reduce the work of conversion where the work otherwise involved would be at a maximum. But conversion of periodic totals cannot be applied to fixed assets and other data whose transactions are generally spasmodic; their conversion should be made with reference to specific transactions and dollar values even though the work may be done periodically.

REPORT OF COMMITTEE ON SELECTION OF PERSONNEL

EARLY in 1951 the Executive Committee of the American Accounting Association approved a suggestion proposed by its Committee on Selection of Personnel that a survey be conducted among the departments of accounting in schools and colleges throughout the country to determine the use being made of the accounting testing materials prepared by the Committee on Selection of Personnel of the American Institute of Accountants. In undertaking this assignment the Committee prepared and distributed about 625 copies of a questionnaire designed to cover what were thought to be the most important points of the entire testing program. The Committee decided to send the questionnaires to a mixed list of selected schools and colleges consisting of some which had never used the tests, others which had discontinued using them, and those which were using the tests at the time of the survey. In those cases where the schools had never used the tests, or where they had discontinued using them, the Committee wanted to know the reasons why.

Of the total number of questionnaires distributed, about one-third were returned, and about 85% of these were from schools and colleges using the tests at the time of the survey. Thus, most of the data compiled were from schools using the tests. While the number of schools not using the tests was relatively small (about 35), they contributed much information to indicate why the tests are not more widely and effectively used.

The main purposes of the accounting testing program of the Institute are to aid in the guidance of accounting students, and their proper placement with employers seeking their services. The proper guidance and placement of students are functions commonly performed by schools and colleges, usually through their teachers, or through established bureaus of student counseling and placement. Thus, the effective use of the accounting testing program depends upon the willingness of the students to take the tests, of the teachers to administer and interpret them, and of the employers to use the results in their selection of accounting personnel. If any one of these three factors is negative, it hardly seems possible that the most effective use can be made of these tests. The data collected in this survey indicate only a few cases in which the tests seemed to have been used very effectively. In the vast majority of cases either the students were reluctant to take the tests, the teachers made very little or no effort to interpret and explain the test scores to students, or the employers failed to request test scores when selecting the students for employment.

The attitude of students toward taking the tests is reflected only by the comments of their teachers, since none of the copies of the questionnaire distributed in this survey were completed by students. The apparent lack of wide use of the scores by employers in their selection of personnel is reflected also only by the replies of the teachers. It is entirely possible, but perhaps not probable, that the data supplied in the questionnaires do not reflect accurately the attitude of either the students or the employers. However, the results of the survey do not leave much doubt concerning the general attitude of the teachers toward the testing program.

The reasons most frequently mentioned as to why students object to the tests are

the cost of the tests, the infrequent requests for test results by employers, and the inconvenience of taking the tests. Even though employers may not request test scores, accounting majors do not seem to object to the tests if they do not have to pay the testing fees and if the tests are administered during regularly scheduled class periods. However, student reluctance to take the tests seems to increase almost to the point of open rebellion where non-majors in accounting are required to take the tests at times other than their regular class periods and are required to pay the costs. Apparently the general attitude of many students at the present time may be summarized in the following manner: "Why should we bother to take these tests now when the demand for junior accountants far exceeds the supply. When the supply reaches a point where it exceeds the demand and more employers start requesting these A.I.A. test scores, we accounting students will gladly take these tests and pay for them."

Undoubtedly the wider use of the test scores by employers in their selection of personnel would greatly stimulate the use of these tests by schools and colleges. However, it seems that most teachers and students are overlooking one of the greatest benefits which might be derived from the use of these tests. If properly used, the Strong Blank and the Orientation and Level I Achievement Tests could be effective tools in vocational guidance and counseling work among students. It appears that it is in this area that the accounting teachers have failed to take full advantage of their opportunity for rendering a worthwhile service to their students and to the accounting profession.

In the past the accounting teacher seems to have been the most important factor in the effective administration and use of the testing program. It has been his responsibility to learn the uses of the tests, convince the students of their value, schedule and conduct the tests, analyze, interpret and explain the results of the tests to the students, and finally use the test results in student guidance and placement. All of these things combined constitute a tremendous burden on the teacher.

Perhaps the Institute's Committee can provide the teacher and the students with more help and encouragement. Many of the teachers who are not using the tests or who have discontinued using them gave the following as their reasons:

1. Questionable validity of tests.
2. Tests too expensive.
3. Tests too much trouble to administer.
4. Results not used for any purpose.
5. Test scores duplicate other scores or grades.
6. National comparisons of scores not fair or accurate.

Many explanations of these reasons were given. For example, several teachers pointed to the unreliability of comparative scores on Level I and Level II tests under various combinations of the following conditions:

1. Tests given on a voluntary basis to all accounting students.
2. Tests given on a voluntary basis to accounting majors only.
3. Tests compulsory for all accounting students.
4. Tests compulsory for accounting majors only.
5. Tests compulsory for accounting majors and on voluntary basis for other accounting students.

Many teachers questioned the validity of comparative institutional scores because of many other non-comparable factors present among participating institutions. Since the Institute's Committee was informed of this particular criticism on the part of accounting teachers the Institute's bulletins issued on the accounting testing program no longer contain comparative charts showing distribution of scores of individual colleges.

Weaknesses in the administration and uses of the tests probably result, to a large extent, from a lack of faith in them on the part of teachers. They do not seem to be convinced of their usefulness. One of the greatest weaknesses in the present administration of the testing program is the failure of those administering the tests to explain properly the purposes of the tests, to distribute the test results to the students, and to interpret and use the test results in the vocational and educational guidance of the students. In only about 8% of the schools using the tests were printed or mimeographed releases prepared and distributed by the accounting department explaining the purposes of the testing program. Only 20% of the teachers distributed the test scores in the classes where the tests were given. In nearly 60% of all cases reported the students were compelled to visit some office and ask for the test scores. In over 12% of the cases the scores were not made available to the students. Fewer than 17% of the test scores were recorded on the students' permanent grade records.

It would seem that if the test results are to be used as the basis of vocational and educational guidance, the process would involve the explanation and interpretation of test results to the students. In some cases the teachers explained the test scores to the students in groups, while others supplemented this by private explanation and interpretation for any student requesting it. However, in about 25% of the cases no explanation or interpretation of the scores was given except upon request by the students, and in over 20% of the cases no explanation or interpretation whatever was given by the teachers.

There seems to be fairly general satisfaction with the scope and content of the tests. Several teachers disagreed with certain features of the tests but only a few indicated any strong feeling in the matter. Several teachers do not believe that the Level I tests are sufficiently comprehensive or properly balanced as to subject-matter. They feel even more strongly on these points with respect to the Level II tests. About 10% of the teachers reporting indicated their willingness to assist in efforts to improve the testing program, particularly with reference to their content and interpretation.

In analyzing the results of this survey, the members of the Committee have very definite impressions that the accounting testing program is not being used effectively in the majority of the schools and colleges where the tests are given; that the number of schools discontinuing the use of the tests just about equals the number beginning their use; that the tests are being given in many schools purely on a perfunctory basis, apparently because it seems to be the proper thing to do, or just in order to "cooperate with the Institute." No costly activity such as this testing program can continue indefinitely unless those who pay for it get some benefit from it. This Committee feels that certain problems should be recognized and proper steps taken toward their solution. Broadly speaking, these problems concern the American Accounting Association, the American Institute of Accountants, and the employers of accounting students, whether in public accounting or private industry. This Committee believes that this is the proper time to re-examine this testing program and ask ourselves some questions somewhat as follows:

1. Do these tests serve any purposes which are not, or could not be, served equally well by other testing, grading, guidance and placement materials and procedures already available in our schools and colleges?
2. Can the schools and colleges or the Institute be induced to pay for the tests used, thus relieving the students of these charges?
3. Can the Institute convince the teachers and employers that the tests results are valid measurements of accounting ability and competence?

4. Will the Association and the Institute do a more effective job of "selling" the testing program to accounting teachers?
5. Can the Institute and the college placement officers do a better job of promoting the use of test results among employers?
6. What can the Institute do to give more help to accounting teachers in their administration of the tests, and in their explanation, interpretation, and use of tests results in student guidance and placement?
7. Should the Association and the Institute work more closely together in further developing and improving the tests?

Of course a negative answer to the first of the above listed questions would make answers to the remaining questions unnecessary. Many teachers have voiced the opinion that these tests substantially duplicate other similar tests, and that for guidance and placement purposes they believe that course grades and general impressions of the teachers are more dependable. Other teachers feel that the tests have considerable value but they question whether such value justifies the large expense in time and money by the Institute, the accounting teachers, and the students who take the tests.

It is the feeling of the Committee that the really effective use of these tests will come only when the accounting students and teachers are convinced that they have real value in student guidance and placement. Perhaps that time will come when there is again a substantial increase in college registration and the supply of available accounting graduates again exceeds the demand. In the meantime it is hoped that the tests can be improved, as to form, content, administration, interpretation, and the use of results.

1951 Committee
Norton M. Bedford
Lyle E. Campbell
Joseph Cerney
Donald D. Luck
R. K. Mautz
James McCoy
Stanley Pressler
Lawrence L. Vance
T. M. Dickerson,
Chairman

1952 Committee
Norton M. Bedford
Samuel Butler
Lyle E. Campbell
Edward G. Eriksen
R. K. Mautz
Stanley Pressler
James S. Schindler
Lawrence L. Vance
T. M. Dickerson,
Chairman

EDITOR'S NOTE: In the July 1952 issue (p. 323), the membership of the 1951 Committee on Internship Programs was reported incorrectly. Following is the correct listing:

Raymond G. Ankers
William B. Jencks
Clarence F. Reimer
David W. Thompson
M. T. Werner
William H. Whitney
Charles T. Zlatkovich
John T. Wheeler, Chairman

AN EFFORT TO DEFINE BUSINESS INCOME*

H. T. Scovill
Professor, University of Illinois

Although double entry bookkeeping has existed for several centuries (since 1494) with very satisfactory results as a recording medium, it has been given a severe test during the last 60 to 70 years along with its companion known as accounting. The severity of the test has been caused by two main elements: (1) expansion of the field to include not only recording of transactions but also interpretation and reporting; and (2) rapid development of business itself with resulting complexity of transactions and adjustments. These two new phases (expansion and development) presented themselves more or less gradually over the period mentioned, as influences began to appear in the form of the business corporation, income taxes, and government regulation.

One of the main products of bookkeeping and accounting for the last century at least has been the calculation of profit or loss. This is true of single-entry as well as double entry, even though in the latter the profit result might be classed as an objective rather than a product. During the last sixty years the textbooks on bookkeeping have kept pace with practical application of the subject, usually however, lagging by about ten years to permit new ideas to solidify and to allow for preparation of manuscript, printing, and proof reading. We are now in one of the most far-reaching of these 10 year lag periods. Textbook writers are trying to observe the solidification of ideas on the meaning of the term "income."

Fifty years ago this month, I completed in high school the first bookkeeping course I ever pursued. When I finished the course with a grade of 98, I knew the meaning of income (or profit and loss result as it was called then). There was no doubt in my mind. It was the difference between the items on the debit side of P & L account and those on the credit side. Furthermore, all items in that account were placed there, on one side or the other in accordance with rules which were clearly stated and rigorously applied. After spending the last 50 years, however, in the study and practice of accounting, I cannot give you a good brief definition of income that will satisfy my conscience as including all the related factors that have entered the picture in the last 15–20 years.

In my first commercial accounting textbook[1] (the real first one was on farm accounting) I find this sentence, "The net increase in capital arising during a period of time from its use in business in connection with managerial ability is called profit. Similarly the net decrease is called loss." Much time was spent, I recall, in phrasing that definition. I wanted to be sure that net profit would not include appraisal increments, that the increase in capital arose from its use in business and not from an economic shift in the value of the dollar; and that managerial ability rather than an Act of God was the motivating factor. Apparently I would have advocated that losses caused by acts of God should be considered a direct reduction of capital. That

* This paper was presented at the 1952 Conference of Accountants, University of Tulsa on May 2, 1952.

[1] Scovill, ***Elementary Accounting***, Part I. D. C. Heath and Company. 1924.

I was conscious of the importance of appraisal increments in the early 1920's is evidenced by the address I made before the American Accounting Association[2] in 1920 on Comparative Financial Statements and the value of the dollar. At that time, when some of us feared a pending monetary inflation, I discussed as a substitute for dollars the possibility that accounts be kept in terms of units of product or units of service, so as to record the efficiencies or inefficiencies of management.

With respect to inventories this textbook designed exclusively for first semester freshmen said, "For federal, as well as some state, income tax purposes it is permissible to price the goods at 'cost or market whichever is lower' if one does not desire to apply the cost price to all items." The author also treated depreciation in the then orthodox method, without even mentioning a calculation based on replacement price.

Before proceeding to the more modern problems, let us take another look at the textbooks to see what principles had "jelled" sufficiently to justify their recognition by the authors. For example, a very well-known single entry text published in 1893[3] apparently was gauged at the "how" rather than the "why" level. In addition to some stated transactions and some very vivid illustrations of books and accounts there was nothing in the text except some very thought-provoking questions of this sort:

13. In a ledger how many pages are used for an account?
    Two.
14. What are placed on the right-hand page?
    Credit entries.
15. What are placed on the left-hand page?
    Debit entries.
16. What is the first horizontal line in a ledger?
    A single blue line.
17. What is the second?
    A double red line.
18. What are all the other horizontal lines?
    Single blue.
19. What is the first vertical line?
    Single red.
20. What is the second vertical line?
    Single red.
21. The third?
    Double red.
22. The fourth?
    Single red.
23. Where should the number of the page be written?
    At the upper outside corner.
24. How far from the top?
    Far enough to look well.
25. How far from the margin?
    As far as from the top.
26. With what kind of ink?
    Black.

A very popular and authoritative text[4] on bookkeeping in 1899 does not define net profit or income but it proceeds to illustrate a Loss and Gain account. This account, when considered with others, reveals that inventories of merchandise were valued at cost. Both Furniture and Fixtures and Store and Lot were inventoried at present value, even though the former required an entry on the left side of Loss and Gain and the latter on the right side. This apparently was a substitute for dedepreciation. The word "depreciation" does not seem to appear anywhere in the text. It should be noted, however, that accounts such as Furniture and Fixtures and Store and Lot were carried by this 1899 author as mixed accounts like the old fashioned merchandise account. Both were charged with the cost of repairs, one was credited with the sale of a chair, and one was charged with real estate taxes.

A very well-known and highly respected author[5] in 1913 said with respect to merchandise inventory, "The method of as-

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[2] It was then known as the American Association of University Instructors in Accounting.

[3] Messervey's *Book-Keeping—Single Entry*, Thompson, Brown, and Company. 1893.

[4] Rowe's *Commercial and Industrial Bookkeeping*, Sadler-Rowe Company. 1899.

[5] J. J. Klein, *Elements of Accounting*, D. Appleton & Co. 1913.

certaining this value consists of listing the goods left and placing a price upon them, usually the cost price." This same author in a book published a few years later[6] advocates "cost or market whichever is lower."

Meanwhile, in 1914 one of the foremost thinkers[7] of his time expresses himself on two topics that are related to our subject, income. First, in his brief discussion on single entry, he does not even comment on the basis of valuation of inventories or fixed assets at the end of a period other than at cost. Thus depreciation of fixed property does not seem to be recognized. Elsewhere in his book, however, based on double entry accounting concepts, are found these comments which express his ideas on recognizing appraisal values on real estate.

"In connection with land and buildings there often arises the question of increased valuation due to favorable conditions in the real estate market. Concerns desirous of making a good showing for a given period, are not unlikely to take advantage of upward fluctuations of land, in order to inflate their 'profits.' The accountant is very likely to have in connection with this kind of profits the same opinion as the average lawyer has about all kinds of gains. To the lawyer nothing is profit which has not been realized in cash. To the accountant, nothing brings profits which has not been sold. He instinctively objects to all kinds of estimates and inflations of capital assets on the basis of market values. He is inclined to think that since business needs its capital assets in order to operate, it cannot afford to sell them; hence, the taking of profits on values supposed to be invested permanently, might well be deferred until they are sold, either because operations have come to an end or because more favorable conditions elsewhere have made advisable the removal of the plant."

The author just quoted hardly even mentions income or profit and loss except in describing the latter as a summary account into which expenses and gains are closed. He comments in these terms:

"It has been found advantageous to create during the fiscal period a series of accounts which are charged with all losses due to the parting with of values which have been counteracted by the incoming of values possessing financial weight. In other words, all expenses paid by the business are recorded in special accounts bearing a title indicative of their contents. At the end of the fiscal period, all these accounts, having served their purpose, which was to gather, analytically, facts of a similar nature, are closed into the Profit and Loss account by means of a credit to the individual accounts, and a debit to the Profit and Loss account for the aggregate amount. The same method is used for such gains as are indirectly connected with the operations of the period (such as interest on bank balances, cash discounts on purchases, etc., etc.). The Profit and Loss account is still directly debited and credited, during the fiscal period, with all such losses and gains as are not the result of the operations of the period (for instance, the loss of a customer's account or the loss of property through fire or other causes over which the business has no control), and with gross profits on merchandise. The last entry is made directly in the Profit and Loss account because the result which it shows is known only at the end of the period, after the application of the inventory."

An author[8] from the ranks of professional accountants in 1918 seemed to find it unnecessary to consider the question of

[6] J. J. Klein, *Bookkeeping and Accounting*, D. Appleton & Co. 1917.

[7] P. J. Esquerre, *Applied Theory of Accounts*, Ronald Press Co. 1914.

[8] C. F. Rittenhouse, *Elements of Accounts*, McGraw-Hill. 1918.

profit or income except in these terms:

"A *profit* results from the sale of a commodity at a price in excess of its purchase price or cost of production. The term *income*, while often used in the same sense as *profit*, relates more accurately to the return realized from labor, from a profession, from invested capital, or from property."

As a final reference to textbooks, let us look at one of the best known books[9] which was published in 1923. It says, "The standard rule for the valuation of inventories is 'cost or market whichever is lower' ". In a discussion a few pages later on, "What is cost?" he says, "The problem of ascertaining costs is complicated by a number of difficult points, among which may be mentioned:

(a) Incidental costs
(b) Manufacturing costs
(c) Relation of interest to cost
(d) Numerous purchases."

Judging from this brief résumé of ideas from several representative authors in the period 1893–1924 the subject of income or profit was not given much attention by those authors who were conservative enough not to try to teach students ideas designated as principles until such ideas really became principles as a result of careful and extended deliberation and general acceptance by the profession and by internal accountants, controllers, and auditors, as well as educators.

In the development of bookkeeping and accounting theories, as observed from the analysis which we have just presented there were not a great many thought provoking situations with which to deal, at least not when compared with those of the last 20–25 years. To be sure the Interstate Commerce Commission and the several state public utilities commissions have had to contend with accounting problems of considerable magnitude since near the beginning of the century. They found it necessary early in their regulatory period to distinguish between capital and revenue expenditures; and to provide for a reasonable line of demarcation between depreciation on the one hand and betterments, replacements, and repairs on the other.

Probably one of the major reasons for the approximate absence of controversial issues with respect to income is that up to about 1925–30, when the Federal Internal Revenue Bureau was gradually formulating its interpretation of income, the tax rates were so low that the effects of a few dollars of income more of less did not create enough furor on the part of taxpayers to cause widespread reference of differences to accountants or lawyers.

It might be noted also that the determination of income did not become a real issue in financial accounting and reporting until a number of other factors entered the picture in quick succession beginning about 1930. I refer to the depression, the creation of the Securities and Exchange Commission, and the enactment of laws which it administers, the passage of income and excess profits tax laws at extremely high rates, laws and court decisions on dividends and surplus, war contracts, with their cost and termination sections, fluctuation of bond and stock prices, labor wage controversies, and the desire of accountants to learn more about this thing called income that was being kicked around by many interested parties, none of whom was an expert in the field.

First let us look at a few of the items from the point of view of the Bureau of Internal Revenue whose entire field of operations might be said to depend on the meaning of the word "income." The 1934 Revenue Act revolutionized income tax philosophy after it had been built up gradually for about 20 years. Up to that time the principles governing income tax

[9] H. A. Finney, *Principles of Accounting*, Vol. 1, Prentice-Hall. 1923.

calculation had been coming closer and closer to those used by corporation accountants and public accountants in determining net profit for information of management and of stockholders. The theme of the 1934 Act, however, seemed to be, "When in doubt about any item call it income." For that reason the Regulations found it necessary to enumerate and discuss a great many types of incomes and expenses entering into the determination of taxable income. Here are some items that are given special descriptions in Regulations 86 under the 1934 Revenue Act: (think of what an accountant is confronted with in evaluating some of these items and in allocating them to specific years):

Stock rights, both from the point of the issuer and the recipient.
Sale of intangibles.
Sale of real property in lots.
Annuities and insurance policies.
Improvements by lessees.
Cancellation of indebtedness.
Creation of sinking fund.
Acquisition or disposition by a corporation of its own capital stock.
Contributions to a corporation by shareholders.
Sale and purchase by a corporation of its bonds.
Sale of capital assets by a corporation.
Income to lessor corporation from leased property.
Gross income of corporation in liquidation.
Inventories by dealers in securities.
Inventories of livestock raisers and other farmers.
Inventories of miners and manufacturers.

Similarly, a number of expense items are discussed in Regulations 86 as to their deductability or non-deductability in deriving the amount to be called "taxable income." Obviously, accounting principles cannot be based on the income tax laws and regulations alone, because several of the provisions of the Revenue Act arise of necessity as matters of public policy or administrative convenience or protection.

Another agency of the Federal Government which has leaned very heavily on accounting principles is the Securities and Exchange Commission created in 1934 to administer, among others, both the 1933 Securities Act and the 1934 Securities Exchange Act. Unlike the Bureau of Internal Revenue (until its recent change in policy) however, the S.E.C. is concerned with both the income statement and the balance sheet.

Throughout the life of the S.E.C. it has attempted to cooperate fully with accountants through the American Institute of Accountants or other groups, as appropriate. From time to time when new problems have appeared before the S.E.C. in registration or periodical statements, it has issued opinions on controversial accounting points only after referring them to accountants for their analysis and expression of judgment. The attitude of the Commission seems to have been that of letting the accountants decide what is good (or bad) accounting if they can.

If accountants cannot reach an agreement, or if there seems to be sufficient divergence of opinion to justify such action in any given case the S.E.C. issues its Accounting Release as its best judgment. In such a case the S.E.C. can merely say in effect, "There seems to be no generally accepted accounting principle in use so we shall have to do the best we can in receiving or rejecting the financial statements." It might be observed in passing that a number of the topics discussed by the Accounting Procedure and Auditing Procedure Committees of the American Institute had their origin in S.E.C. registration statements. On a number of occasions the S.E.C. has adopted the recommendation of the Institute Committee, but in some cases it has not. Most of the latter were referred back with additional clarifi-

cations which were overlooked in the first instance.

The S.E.C. has issued 70 Accounting Releases since it inaugurated that practice April 1, 1937. The first 63 of these were bound in a single volume on August 5 1947. Most of the principles covered have been incorporated also from time to time in Regulation S-X which is a codification of all rulings of the S.E.C. dealing with Form and Content of Financial Statements. The latest revision of S-X is dated March 12, 1951. It incorporates the changes that were announced in Accounting Release No. 70.

The tone of Regulation S-X is one that speaks more in terms of disclosure than of adoption of a specific principle. For example, under "Inventories" we find this provision, "The basis of determining the amounts shall be stated. If a basis such as 'cost,' 'market,' or 'cost or market whichever is lower' is given, there shall also be given, to the extent practicable, a general indication of the method of determining the 'cost' or 'market'; e.g., 'average cost,' 'first-in, first-out,' or 'last-in, first-out' ". Obviously, the S.E.C. does not express a preference for FIFO or LIFO; it merely wants full disclosure regarding the method used.

Similarly, in another controversial field the following instructions appear under the paragraph heading, "Depreciation, depletion, obsolescence, and amortization."

"State for the period for which profit and loss statements are filed, the policy followed with respect to—

"(1) The provision for depreciation, depletion, and obsolescence of physical properties or reserves created in lieu thereof, including the methods and, if practicable, the rates used in computing the annual amounts;

"(2) The provision for depreciation and amortization of intangibles, or reserves created in lieu thereof, including the methods and, if practicable, the rates used in computing the annual amounts;

"(3) The accounting treatment for maintenance, repairs, renewals and betterments; and

"(4) The adjustment of the accumulated reserves for depreciation, depletion, obsolescence, amortization or reserves in lieu thereof, at the time the properties are retired or otherwise disposed of, including the disposition made of any profit or loss on sale of such properties."

There, again, it seems that the S.E.C. is willing to let the corporation accountants and the public accountants decide whether to depreciate at original, or at present replacement, cost.

Reverting for a moment back to the question of S.E.C. Accounting Releases, it seems that there are several which deal primarily with income determination. They appear under these titles:

"Treatment of losses resulting from revaluation of assets."
"Treatment of unamortized bond discount and expense applicable to bonds retired prior to maturity with proceeds from sale of capital stock."
"Treatment of Federal income and excess profits taxes."
"Treatment by investment company of interest collected on defaulted bonds applicable to a period prior to the date on which such bonds and defaulted interest are purchased."
"Treatment of premiums paid upon the redemption of preferred stock."
"The propriety of writing down goodwill by means of charges to capital surplus."
"Statement of the Commission's opinion regarding 'charges in lieu of income taxes' and provisions for income taxes in the profit and loss statement."

In examining all the evidence that has been considered thus far we believe three points stand out significantly: 1. accountants up to 1947 had not agreed on a definition of business income that seemed practically usable for all purposes. 2. The Bureau of Internal Revenue had not, prior

to that time, established a definition of taxable income except in terms requiring hundreds of pages of printed material for its description, elucidation, and clarification. 3. Neither the Securities and Exchange Commission nor other regulatory agencies of government has felt like establishing mandates that could be interpreted as settling many of the controversial issues revolving around the term "income."

Accordingly, with all the possible altruism at their command a few accountants (who had braved many rigorous conferences on accounting principles, practices, and terminology) apparently wanted to know if all business income could really be corraled in principle and branded with a definite stamp by which it could forever thereafter be identified as merely business income. The alternative, we assume, would be to continue to designate different types of transactions as affecting or not affecting income, just as some initials are branded on ponies so that it may be possible to identify them one from another even though their fundamental characteristics are the same.

These brave accountants who still felt that income fragments could be corraled, obtained funds with which to pursue the study. They recognized that real progress could be made "only in cooperation with those who use accounts or the results thereof and those who use similar terms in their own disciplines."[10] Accordingly, they invited not only other accountants to participate but also lawyers, economists, financiers, statisticians, and government regulation officials. Members of the groups named are regularly confronted with accounting data and are therefore interested in greater uniformity and clarity of principles, practices, and terminology.

With an appropriation of $60,000 furnished about equally by the American Institute of Accountants and the Rockefeller Foundation, the Study Group on Business Income as it was called had hopes of getting a closer correlation of the meaning of income as viewed by accountants, economists, lawyers, and financiers some of each group of which might be thinking in terms of private business and some in terms of government regulation. Several monographs were prepared as expressions of opinion which could be read and later criticized by other members of the group in open meeting.

The most extended arguments in committee sessions, and in exchange of written memoranda among members of the Group related usually to the means by which a changing price level can be reflected in the income statement, if at all. This naturally drew many comments about depreciation charges and inventory valuations, with the general use of index numbers receiving considerable attention.

The following bits of philosophy appear in the printed report of the Study Group on Business Income, as evidence of a desire and an attempt to resolve some of the dilemmas with which the members were confronted.

"Income determination has been, and will remain, a compromise between theory and practicability."[11]

"The fact that the last quarter of the 19th century (in which accountancy began, to assume wider importance) was one in which the trend of prices was downward, while in the present century the trend has been upward, is significant."[12]

"As will be seen from the Summary and Conclusions, the Group recommends as a goal an expansion of the framework of ac-

[10] Quoted from letter of John L. Carey, Secretary (now Executive Director) of the American Institute of Accountants, addressed to the Rockefeller Foundation May 27, 1947.

[11] *Changing Concepts of Business Income*. Page 2.
[12] *Ibid*. Page 3.

countancy statements designed to distinguish between the results of activities measured in units of substantially equal purchasing power and the effects of changes in the purchasing power of the monetary unit."[13]

"Income is the money value of the net accretion to economic power between two points of time."[14]

"We ought to define a man's income as the maximum value which he can consume during a week, and still expect to be as well off at the end of the week as at the beginning."[15]

(One of the economists of the Study Group supports this definition, *but* in his monograph prepared for the Group he interpreted it as calling for periodic determination of the *present value* of all future expectations, and income as including a regular flow and a change in the capital value of such a flow or of any other expectation, and also casual or nonrecurring profits.[16]

"One buys a $2\frac{1}{2}\%$ Government Bond for $100. He receives $2.50 interest at the end of the year and then sells the bond for $97.50. Has he realized an income? (Consider this in connection with an Endowment Fund and income therefrom.")[17]

"From a practical common sense point of view there is something strange in the idea that a man may indefinitely grow richer without ever being subject to an income tax." (This referred to Court decisions re. tax exemption for stock dividends.)[18]

"It is desirable constantly to keep in mind that the monetary unit is designed primarily for use as a medium of exchange, and that its secondary use as an accounting symbol is only an expedient. In accounting the monetary unit is a tool or symbol whose character should always be kept in mind in determining the manner of its use, and which may have to be discarded if it loses the characteristics which make it useful."[19]

"A fair determination of income for successive accounting periods is the most important single purpose of the general accounting reports of a corporation."[20]

As a final quotation from the report let me present this which in turn is a quotation from the Fifteenth Annual Report of the Securities and Exchange Commission 1949, page 179.

"The conclusion reached was that depreciation charges in financial statements filed with the Commission should continue to be based upon cost. Revisions of financial statements on file have been made in accordance with this conclusion. In some cases accounting recognition has been given to the high rates of production enjoyed in postwar years by accelerating depreciation charges in periods during which productive capacity was used in excess of normal average production over a representative period of years. Similarly, the amortization of plant costs incurred to capture a temporarily expanded demand was deemed to comply with the generally applicable accounting principle of matching costs with revenues. In such cases a clear explanation of the circumstances justifying the early amortization of costs has been obtained."[21]

Naturally with so many diverse interests involved it was impossible to obtain unanimous approval of the report as it was finally published. The report shows the names of forty-four individuals who had taken at least a small part in the deliberations and who were willing to sign the report for publication either without com-

[13] *Ibid.* Pages 3–4.
[14] *Ibid.* Page 7.
[15] *Ibid.* Page 8.
[16] *Ibid.* Pages 8–9.
[17] *Ibid.* Page 10.
[18] *Ibid.* Page 13.
[19] *Ibid.* Page 16.
[20] *Ibid.* Page 19.
[21] *Ibid.* Page 52.

ment, with comment or dissent. Of the 44 there were eight who filed dissents and nine others who presented comments.

As a sample of the comments, I am willing to present my own because they are based on fifty years of experience or training in the field of accounting; and because much of what I have said here today has been presented as background material to show why I believe that progress in a field such as accounting is made slowly. There are so many people who use the results of accounting but who know nothing about its development or technicalities that their influence is ever present and also overemphasized. Accountants should feel more secure in their fundamental principles and not be so easily led into believing that the concepts and terms in accounting can be easily changed from day to day.

Chemists have designated one of the elements of the earth as copper. That word has been used for years to describe the metal which has so many uses. It was a long time after its discovery before chemists knew anything about some of its finest qualities in electronics, but they continued nevertheless to call it copper. They did not change the name just because some non-technical usages of the word had come to their attention. For example, among the accounting profession we find some who would drop the use of the faithful and satisfactory word "Surplus" just because the word has been used in Washington to refer to surplus commodities, as ones no longer needed. We do not find chemists changing the word copper just because the word is widely used to refer to a policeman. Accordingly, my comments as published express hope that by dissemination of the ideas contained in the report we can develop the importance and value of accounting that it deserves in the forthcoming years. They are phrased in these words:

"I am voting in favor of publishing the report of the Study Group on Business Income, but I believe that the ideas presented in the report need exposure to many analytical minds in the related fields before being accepted as 'weight of opinion.' I have certain reservations which may be expressed as follows:

"1. It is impossible in any large group of individuals engaged in a common pursuit to obtain unanimous recognition of a set of principles, code of operation, rules of procedure, or other important formal statement intended to guide or direct the actions of the individuals. Like most legislation, such guiding or directing statement must be a compromise.

"2. If the compromise in the case of accounting matters tends to focus previously diffused ideas into a reasonably rational pattern and results in advising accountants in general of a highly acceptable and probably preferable procedure as viewed by men of unbiased judgment and broad experience, I am for such compromise.

"3. If, perchance, the proposals of the Income Study Group as now drafted do not stand the test of continued and varied application, it is assumed that modifications can be made within a reasonable time. Just as progress has been made in the last forty years, so will progress be made in the next forty, the next ten, and the next five years. Our committee should not feel that it is so farsighted and so wise as to draft a document to stand unmodified for all time. We should present the best as we see it today, and assume that we or someone equally wise can effect necessary changes as needed, just as we have wrought changes in the patterns followed more or less loosely by our predecessors."[22]

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[22] *Changing Concepts of Business Income.* Page 124.

THE ACCOUNTANT'S ROLE IN OUR PRESENT ECONOMY*

BRIGADIER GENERAL T. R. RAMPY
U. S. Air Force, Auditor General

MY REMARKS TONIGHT will be concerned with the accountant and his role in the expanding defense program. In my references to the accountant, I am referring to him in both public practice and private employment, since I sincerely believe that every real accountant is, broadly speaking, a public servant. He renders a public service by seeing to it that accounting data disseminated to the public fairly presents the financial facts of the business or activity involved. Recognition of this responsibility by accountants themselves will serve to establish their professional status. The accountant's knowledge of business and financial matters and his reputation for integrity equip him to exercise economic and ethical leadership so greatly needed in today's society.

For the purpose of tonight's discussion on the accountant's role in our present economy, I have selected several areas in which he may be of great assistance in the mobilization effort.

TECHNICAL AID TO MANAGEMENT

In the present common task of strengthening the defenses of our country, the honest and conscientious efforts of private industry, government and the individual, must be combined to obtain the greatest possible productive return from our material resources.

Today, business organizations both large and small require the services of many technical and professional men, such as engineers, scientists, lawyers and accountants. Without accounting the business cannot exist. The accountant plays an ever increasing role in the interpretation and application of statistical and accounting data as a major assist to management. He is becoming more and more effective in the technical aspects of budgetary controls, cost systems, taxes, and governmental regulations. The accountant not only provides assistance to management in the conduct of day to day operations but also in the determination of long range policies.

To conserve our resources and to obtain the greatest possible productive return we must have *efficiency*. I am sure you who are here tonight are most seriously concerned with ways and means of promoting efficiency in every phase of your business. I should like to remind you of some ways accountants can promote greater efficiency.

1. Cost Accounting and Management Reports.

The directorate and company officials must have good cost accounting and financial reports properly and promptly prepared. The promptness with which financial reports are furnished is of utmost importance. Management cannot wait until the end of a year, or even a few months for cost facts and that implies cost trends.

Accounting data to be of the greatest possible value will keep management constantly advised of the financial result of operations. In addition to the historical record of past operations, the accountant

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can assist management by the application of projected cost data to anticipated production. In times when costs of labor and material are subject to change and when production quantities may be subjected to wide variations, frequent forecasts of operation results are important.

In addition to timeliness, reports must be worthy of reliance. To obtain reliability the accounting and cost systems must include adequate internal controls.

2. Internal Control.

For a definition of internal control and at the risk of repeating what most of you have probably read, I quote from the pamphlet issued by the Committee on Auditing Procedures of the American Institute of Accountants, titled "Internal Control."

> "Internal control comprises the plan of organization and all of the coordinate methods and measures adopted within a business to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies. This definition possibly is broader than the meaning sometimes attributed to the term. It recognizes that a 'system' of internal control extends beyond those matters which relate directly to the functions of the accounting and financial departments. Such a system might include budgetary control, standard costs, periodic operating reports, statistical analyses and the dissemination thereof, a training program designed to aid personnel in meeting their responsibilities, and an internal audit staff to provide additional assurance to management as to the adequacy of its outlined procedures and the extent to which they are being effectively carried out."

Again quoting from the pamphlet,

> "The primary responsibility for safeguarding the assets of concerns and preventing and detecting errors and fraud rests on management. Maintenance of an adequate system of internal control is indispensable to a proper discharge of that responsibility."

3. Internal Auditing.

The internal audit function can be referred to as "eyes of management," or an independent source of review, appraisal, evaluation, and recommendations for changes in accounting and costing methods and procedures. It may also serve as an aid in developing time and quality standards of performance. The internal audit staff in order to be effective must be independent of the operating staff of accountants, reporting to management in such manner as to be an integral part of the internal controls.

We in the Defense Department are vitally interested in the accounting systems, including internal controls of our contractors. Internal auditing can be of great assistance to us. We have found that by close study of accounting operations in large plants many savings in personnel have been effected and by installing internal audit staffs the standards of efficiency have not only been maintained but have been gradually improved. The number of Government auditors has also been greatly reduced in these plants.

The Air Force has a responsibility to get the most out of each dollar it spends, and Industry has an equal responsibility to use its own dollars efficiently and to demand prices which yield no more than a fair profit.

Government procurement officers want contractors to present accurate costs of work done and sound estimates of the costs of unfinished work. Therein lies a need for good accounting. Good cost reports, promptly prepared, are essential to expeditious repricing under price redetermination forms of contracts. This reduces expenses of both the government and the contractor. The result is greater efficiency.

GOVERNMENT REGULATIONS

During the past two years there has been a significant increase in governmental control over business due to the "grey-war" mobilization conditions. These controls are evidenced by the laws and

regulations relative to priorities, allocations, prices, and wages. As a result, business is subject to many procedural and reporting requirements.

In this field the accountant has practically an unlimited opportunity in which to assist management in complying with the rules and regulations.

1. Cost Accounting Under Government Contracts.

The Army, Navy and Air Force joined in the development of a new definition of cost which has been adopted by the Munitions Board of the Department of Defense for use in cost reimbursement type contracts. This is known as Section XV, Contract Cost Principles, of the Armed Services Procurement Regulations and which became effective 1 March 1949. Paragraph 15-000, entitled "Scope of Section," reads as follows: "This section sets forth, in general, standards for the determination and allowance of costs in connection with the performance of cost-reimbursement type contracts." Briefly this section deals with the types of costs which may be allowed in Research and Development, Supply and Material, and construction cost-type contracts for the Army, Navy and Air Force. The accountant's role here is to study the Cost Principles closely and see that his accounting system provides for a segregation of allowable costs for billing purposes under his cost reimbursement type contracts.

It is in this area that we have had many differences of opinion in the past between contractors and government auditors, including the General Accounting Office, as to items and amounts proper for reimbursement. The Contract Cost Principles have helped to reduce the number of these disagreements. It is worthy of mention also that there is now a closer working relationship and better understanding of responsibilities among the services and the General Accounting Office than existed during the War. The reliance which the General Accounting Office places on the auditing procedures of the Services indicates the seriousness of our own responsibilities. We require and make every effort to obtain accounting personnel qualified to perform audits of contractors' claims which will adequately protect the public interest.

In addition to the audits of cost reimbursement type contracts, which are necessary in all cases regardless of the amount involved, there are audits of fixed price contracts which have price redetermination provisions. As most of you probably know, many of our large contracts are now placed on that basis. This means that provisions are made for adjustment of the originally stated fixed price during production based on the actual cost of production of a stated portion of the contract. No definite cost principles have been developed for use in these contracts but for auditing purposes we adhere to the Cost Principles authorized for cost reimbursement type contracts. The procurement officers are not, however, required to be governed strictly by these Cost Principles in negotiating prices with contractors.

Accountants in industry who are concerned with any such contracts should advise Management to obtain a definite understanding as to what constitutes proper cost in the mind of the government negotiator. This will assist the accountant in developing a cost statement and may avoid disagreements and disappointments concerning the allowable items of cost.

Another area of interest to accountants relates to terminated contracts. I refer you to the very recently released Section VIII of the Armed Services Procurement Regulation which covers matters relating to contract terminations. Among other things it includes a definition of Cost for use in considering terminated fixed price contracts. Again all accountants who are in-

terested in defense procurement contracts should have a copy of this Section VIII and study its provisions carefully.

You may think I have placed the cart before the horse by now mentioning that I feel accountants should play a major role prior to the execution of contracts. I have indicated something of the accountant's job in the administration of contracts but I am a strong believer in the idea that accountants can be of great assistance to management in seeing that the financial phases of contracts are clearly stated. In order to perform this duty the accountant must keep himself informed and he must be alert to the technical accounting implications of the various contract clauses. This requires the application of training, experience and energetic effort.

2. Guaranteed Loans for Defense Production.

These loans are commonly called "V" loans.

The provision for Guaranteeing loans for defense production purposes is in the Defense Production Act of 1950. Procedures under this Act, as it applies to banks and borrowers, are in Regulation "V" of the Federal Reserve System ("Loan Guarantees for Defense Production").

On February 1, 1951, the Secretary of Defense issued a supplemental directive which stated, in part, "guaranteed loans under the 'V'-loan program will be used primarily for working capital purposes." The "V"-loan program is available both to prime and subcontractors.

The "V"-loan is essentially a self-liquidating credit, generally written on a revolving credit basis, and the maturity is limited by the last delivery date of the contracts forming the collateral basis.

3. Elimination of Excessive Profits in Procurement Contracts.

It is the purpose of the various procurement agencies to use that method of procurement best suited to the circumstances. This means that we try to place contracts in such manner and of such type, that is—fixed price, cost reimbursement, price redetermination, or incentive, so as to obtain production at the lowest cost plus a fair profit. It is unnecessary to reiterate the value of this principle in avoiding inflationary trends. We should all recognize that we cannot afford to trifle with our economy by overlooking or winking at the possible effects of inflation. Accountants should be the first to sound the warning.

However, we know that this objective may not always be attained and that some contractors will develop excessive profits on their government contracts. To eliminate these excessive profits we have the profit limitation provisions of the Act of 1934 (Vinson-Trammell Act); the Renegotiation Act of 1948; and the Renegotiation Act of 1951, with which you are all familiar.

These Acts apply to contracts and subcontracts entered into for Defense Production with provisions stating under which Act the contract will be governed.

4. Price, Salary, and Wage Stabilization.

The chief purpose of the Office of Price Stabilization is to promote the national defense by preventing inflation and preserving the value of the currency. This is done by establishing price ceilings to stabilize the cost of living and cost of production, both civilian and military.

Along with price stabilization we also have the offices of the Salary Stabilization Board and Wage Stabilization Board.

5. Taxes.

I suppose that almost everyone in this room is actively engaged, at this time of year, in the preparation of the various tax returns required by the Federal, State, and Local taxing authorities. The "Ides of March" are slowly but surely approaching.

The tax question is one that management must constantly consider. It is a well known fact that practically all accounting and financial decisions have a bearing on the tax liability of the company concerned.

The Controllership Foundation, Inc., has recently completed a research study on corporate tax planning, "Management Planning for Corporate Taxes." A brief summary of the study appears in *The Journal of Accountancy* for January 1952. This study brings out that management needs the best tax advice it can obtain in the operations of its day to day business.

Management looks to the accountant to supply this need.

In the above examples are presented some of the laws and regulations which indicate responsibilities of accountants in our defense economy. The basic information required by these examples comes almost entirely from the accounting records of the business. Unless the accounting and financial records are adequate to supply this information required by management, then the accountant has failed to live up to his responsibility. Inadequate accounting records and data may also increase the expense of the government in its audits of the records and reports.

In contrast, however, an adequate system will provide the information required by various governmental agencies with a saving to both the government and the contractor. The result is greater efficiency.

AID TO FIGHT REGIMENTATION AND WAR WASTE

As a tool of management, in industry, and in government, the accountant must now, more than ever before, measure up to the highest professional standards. In a recent address before the American Institute of Accountants, Harold E. Stassen, cited a number of the dangers to freedom and discussed methods of avoiding these dangers. In this address Mr. Stassen presented two of the dangers specifically for the consideration of accountants in these words:

> "In any case, none are more important to any of us than the two that I lay before you—the avoidance of inflation and the maintenance of adequate private reserve of capital for American enterprise. The successful solution of these two problems is essential for the continuance of true freedom in our nation and for the favorable evolvement of our economic system."

The present day problems facing business present a challenge to the accountant, which he cannot safely ignore, to be of greater service to his client and to his country.

AN EXPERIENCE WITH SMALL RANDOM SAMPLES IN AUDITING

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THE SUGGESTION is frequently made that only by experiment under actual field conditions can the validity of statistical sampling methods in auditing be established. Certainly experimentation can throw light into corners of the subject which the theorist may not have noticed or adequately emphasized, and facilitating devices developed by individual practitioners may be of general interest. For these reasons the following brief description of procedures developed in two successive audits of the same client are presented.

The client is a county which includes a large metropolitan area; receipts and expenditures are in excess of $50,000,000 yearly. The major offices from the viewpoint of accounting are those of the assessor, auditor, tax collector and treasurer. Twenty-four other offices or departments have some financial accountability and received due attention from the auditors. The audit is made on behalf of the Board of Supervisors (the executive branch of the county government) and the Grand Jury.

In preliminary planning of the first of the two engagements two phases of the sampling were determined. First, it was decided to use samples of 100 from each of the accounting areas furnishing a large population of entries. Second, it was decided that samples would be drawn on a random basis, and to insure randomness, tables of random sampling numbers were obtained and used.[1]

The random samples were drawn and tabulated for five areas of the accounts, namely, warrants payable, vouchers payable, payrolls, delinquent tax redemptions and personal property taxes receivable. These areas give samples of the work of three of the major offices, only the assessor being omitted due to the difficulty of applying random numbers to the selection of a sample there. Three aspects of the procedure are of special interest: the arrangement of numbers randomly drawn into numerical order for greater ease in going into the records; the working papers used in tabulating the results of sampling; and the use of a "horizontal" audit of the transactions as well as "vertical" checking.

There is obvious economy and convenience in being able to go through the records in chronological or numerical order when selecting documents for examination, but random numbers are precisely what the name indicates. The auditors in the subject case recorded the random numbers as they were taken from the tables on a working paper so that they could be read off in numerical order. The form is shown on page 473. The tabulation provides one line for each bracket of 1,000, the 10 columns dividing each bracket into hundreds. This does not provide a space for each number but two or more numbers can be written in each space (separated by commas) and more space is not likely to be required. The method also saves considerable writing of long numbers as reference to the illustration discloses. The numbers tabulated in the illustration are read as follows: 2, 88, 241,

[1] See Vance, Lawrence L., *Scientific Method for Auditing*, University of California Press, for a description of random sampling numbers.

Illustration of Tabular Arrangement of Numbers Drawn Randomly to Facilitate Reading in Numerical Order

	000	100	200	300	400	500	600	700	800	900
000	2, 88		41							
1,000						79				
2,000		88								
3,000						25				
4,000										
5,000				10					90	
etc.										

1579, 2188, 3525, 5310 and 5890. The numbers could be tabulated directly in terms of the numbers of vouchers or other documents being examined by adding to each random number taken the number of the last document issued before the opening of the period under examination.

Results of the sampling were tabulated on working papers in detail. For example, the program and working paper column headings for the examination of payroll are as follows:

Program for Payrolls

1. Prepare schedule of random numbers covering the range ——— to ———.
2. Abstract and itemize the warrant number, date of payroll, salary ordinance number, department number, gross salary, withholding tax and net salary.
3. Scan payroll sheets for items selected by the random numbers for authorization by civil service and certification by department heads.
4. Check information listed under item 2 to warrants.
5. Check salary with civil service personnel file.
6. Trace withholding tax to exemption certificate and tax summaries in auditor's office.

Working Paper Column Headings for Payroll Sample

Warrant number
Date of payroll
Salary ordinance number
Department number
Gross salary
Withholding tax
Net salary
Indorsement checked
Warrant checked for amount
Extension checked
Approval checked
Civil service personnel file checked
Checked to withholding records

Numbers of the warrants identifying the individual payroll items making up the sample were listed at the left of the working paper. The first seven columns on the working paper contained data abstracted from the payrolls, the remaining six contained check marks to indicate that the work specified had been done or contained a footnote reference to an exception disclosed by the process. Column headings for the working paper tabulating the test of vouchers illustrates this procedure further. They follow:

Working paper column headings for voucher sample

Date
Voucher number
Payable to
Amount
Discount
Warrant number
Checked indorsement
Checked footing
Checked extension
Checked signature
Checked to voucher register
Purchase order number
Checked to budget ledger:
  Year
  Appropriation
  Class

Similar procedures were used for warrants payable, delinquent tax redemptions and personal property taxes receivable.

This sampling procedure is considered

very effective by the auditors for three reasons: (1) It requires explicit attention to each step for each item being checked and avoids the tendency to carelessness which leafing through a mass of consecutive documents often encourages; (2) it entails a scattered sample which leads the auditor into files he otherwise would not open; and (3) it provides a very graphic picture of the results of the sampling which is valuable in reviewing the working papers. The auditors in this case were told by employees of the county that no prior auditors had delved into so many things; the usefulness of such an impression in discouraging inefficiency and fraud is obvious. It is evident that some of the effectiveness of the method described here is due to the "horizontal" checking of transactions, i.e., following a transaction through all the papers relating to it as contrasted with following it from one original paper through a journal to a ledger account. The latter technique was not slighted in the subject case but much more than is commonly done with the "horizontal" technique was employed. It is significant that this extension of technique becomes more practicable as the sample size is reduced. This is true also of the use of a working paper tabulation of the sample and of the more careful examination of each factor specified in the program which use of the working paper encourages.

In addition to weaknesses in the system disclosed at various points the sampling turned up one case of a rather striking sort. The working paper tabulating the test of vouchers showed several minor errors in the column for "extensions." Upon investigation it was discovered that the person who was supposed to be checking the extensions had no adequate calculating machine for the job and was inadequately instructed in the work he was to do. Although this should have been discovered by any good audit which included a review of voucher extensions, it is important to note that the significance of the minor errors was clear in this case where the sample was small in the light of traditional auditing procedure. The assurance of randomness in the samples was a very important factor in this result.

The auditors are happy about the sampling for these reasons: (1) more care in each step of the sampling is encouraged, (2) the random sample covers more areas of the accounts, and (3) a very graphic picture of sampling results is given, especially when a working paper tabulation of them is made. These results flow partly from the smaller sample size and partly from the random selection. The client was also pleased with the results.

SAMPLING TABLES: AN IMPORTANT STATISTICAL TOOL FOR AUDITORS

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INTEREST in the use of statistical sampling techniques by auditors has grown recently. Articles in the ACCOUNTING REVIEW [1], *The Arthur Andersen Chronicle* [2], *The Woman C.P.A.* [3], and the *Journal of the American Statistical Association* [4] testify to this development. The use of statistical techniques can furnish an auditor not only with more objective criteria as to the sample size required and the interpretation of the sample, but it would also probably reduce costs. These advantages have been stressed already—for example, in Vance's *Scientific Method for Auditing* [5],—and will not be elaborated upon here.

When applying statistical techniques to auditing, it is of great importance that these techniques be used correctly. This is particularly true at the initial stage of application, because poor results from the first uses of statistical tools may very likely lead an auditor to abandon them entirely. It is to be regretted, therefore, that some of the articles by auditors in the statistical area contain both major and minor faults. A recent paper [1], for example, presented a formula by which an auditor could interpret his sample result. This presentation not only missed the fundamental problem of determining the needed sample size by means of statistical theory, but also gave an approximate formula which, under many conditions, would be inadequate. Furthermore, a number of tables are available which furnish auditors with information about the required sample size as well as the interpretation of the sample results without the necessity of any computations by the auditor. It is the purpose of this paper to describe some of these tables, how they may be used, on what assumptions they are based, and their limitations.

SOME BASIC NOTIONS

In the ensuing discussion, it will be assumed that the auditor can classify each item in his sample, e.g., payroll vouchers, as correct or incorrect, and that he selects his sample at random. Complex problems are involved here; and the lack of discussion pertaining to these issues should not be construed as an avoidance of them. This area, however, has been discussed previously (see, e.g., [6]) and it is felt, therefore, that it can be put aside for purposes of this paper.

An auditor, when employing sampling techniques, faces the fundamental problems of determining his sample size, selecting the sample at random, and interpreting his sample results. The use of sampling procedures always exposes him to risks of making incorrect decisions. If he takes a sample of payroll vouchers, for instance, and examines those which he selected, he may—on the basis of this evidence—conclude not to examine the remainder of the vouchers, when this examination is really necessary. On the other hand he may decide—on the basis of the sample result—to make a 100% check of the payroll vouchers, when this check is really not necessary. These risks always harass an auditor when he uses sampling techniques. The use of statistical sampling methods makes these risks objective and controllable by an auditor. All the sampling tables

which will be discussed in this paper are interpreted by means of the risks which they embody. Unfortunately, the terminology of these tables is not familiar to an auditor, so that the first task of this paper is to acquaint the reader with the concepts and terms to be used subsequently.

A *lot* refers to the totality of items, in other words to the population, which an auditor is sampling in order to make some kind of a decision concerning it. For purposes of the following discussion, the 5000 payroll vouchers of a given firm for the year 1951 will constitute the lot. Once a suitable definition of an erroneous payroll voucher has been set up, the lot is sampled at random so that the auditor may make a decision as to whether the *quality of the lot* is satisfactory or not. This decision is made on the basis of the sample results. The quality of the lot is measured by the proportion of erroneous vouchers to all vouchers, often called *percent defective*. A lot is *accepted* if the auditor concludes that its quality is satisfactory, or *rejected* if the conclusion is that its quality is unsatisfactory. The latter conclusion would lead to a definite course of action, such as 100% inspection of the lot or a qualification of the auditor's certificate.

In the selection of the sample, several alternative sampling methods are available. *Single sampling* consists of the taking of a sample of fixed size at random, and on the basis of the sample result making a decision as to acceptance or rejection of the lot. For example, the sampling plan may state: Select 225 vouchers at random. If five or less vouchers in the sample are erroneous—defective in the terminology of the tables—accept the lot as satisfactory. Otherwise, reject the lot as unsatisfactory. This plan may be given succinctly as follows [7, p. 327]:

Sample Size	*Acceptance Number*	*Rejection Number*
225	5	6

Another type of sampling is double sampling. With this approach, a first sample is selected at random which *may* lead to acceptance or rejection of the lot; but it may also lead to a second sample before this decision is made. A definite decision as to acceptance or rejection of the lot is in this latter case deferred until after the second sample. To be specific, the sampling plan may state: Take a first sample of 150 vouchers at random. If three or less erroneous vouchers are found in the sample, terminate sampling and accept the lot; if eight or more erroneous vouchers are in the sample, terminate sampling and reject the lot. If, however, there are four to seven erroneous vouchers in the sample, select a second sample of 300 vouchers at random. On the basis of the *combined* sample, accept the lot if there are seven or fewer erroneous vouchers in the two samples; reject the lot if there are eight or more erroneous vouchers in the combined sample. Again, this plan can be stated concisely as follows [7, p. 327]:

Sample	*Sample Size*	*Combined Samples*		
		Size	*Acceptance Number*	*Rejection Number*
First	150	150	3	8
Second	300	450	7	8

A logical question to ask at this point would be why one should stop at two samples. Plans which provide for more than two *possible* samples are known as *sequential* or *multiple* sampling plans and are a straightforward logical extension of double sampling. A concise summary of such a multiple sampling plan is, therefore, given immediately [7, p. 327]:

Sample	*Sample Size*	*Combined Samples*		
		Size	*Acceptance Number*	*Rejection Number*
First	50	50	*	3
Second	50	100	1	4
Third	50	150	2	6
Fourth	50	200	3	7
Fifth	50	250	4	8
Sixth	50	300	5	9
Seventh	50	350	7	10
Eighth	50	400	9	10

* Acceptance is not permitted until two samples have been inspected.

Several points should be noted about this multiple sampling plan. The lot may be rejected after the first sample, but it may not be accepted until after the second sample. The first line means: Reject the lot if three or more erroneous vouchers are in the first random sample of 50 vouchers. Otherwise take a second random sample of 50 vouchers. The second line means: Terminate sampling and accept the lot if no more than one erroneous voucher is in the combined first two samples; reject the lot if four or more erroneous vouchers are in the combined sample. If neither of these two alternatives occurs, take another random sample of 50. The other lines are interpreted in a similar manner.

What are the characteristics of these three types of sampling plans? It may appear on first thought that the double and multiple sampling plans should provide the auditor with more protection against making incorrect decisions since more samples may be taken under them than under single sampling. This, however, is not the case. All three plans presented here provide approximately the same protection against making incorrect decisions [7, p. 327]. In that case, why should one use the multiple sampling plan then—which may require an examination of 400 vouchers—when single sampling uses a sample of only 225 and still affords the same protection against making incorrect decisions? The answer is that the average sample size required to reach a decision as to acceptance or rejection of the lot under multiple sampling is generally substantially smaller than those for single or double sampling, where all plans afford the same protection against making incorrect decisions [7, pp. 28–32; 8, p. 1]. Double sampling, on the average, generally also results in substantial savings in sample size over single sampling—both plans giving the same protection—if the quality of the lot is good or poor. For in-between quality of the lot inspected, double sampling may require slightly larger samples than single sampling [7, pp. 30–22]. It should be emphasized that both double and mutliple sampling methods provide, on the average, substantial savings in sample size over single sampling if the quality of the lot is particularly good or poor. In that case, the decision as to acceptance or rejection of the lot is usually made at an early stage with a resulting small sample size. This appeals to one's common sense, as it should be relatively easier to recognize particularly good or poor lots than lots of mediocre quality.

A decision as to which type of sampling procedure should be employed must depend upon such considerations as cost and convenience [7, pp. 33–38]. If an auditor is sampling a batch of payroll vouchers located in one place, there would probably be no inconvenience in selecting successive samples. Hence, the multiple sampling method would have a particular appeal because of its smaller sample size on the average. If an auditor is confirming accounts receivable, on the other hand, it would be much too time-consuming to await the return of some confirmations and then to decide to send out more confirmations. A single sampling plan would probably have to be used here, although possibly a double sampling plan might be feasible.

It has been seen that single, double and multiple sampling plans can be set up to give the same protection against making incorrect decisions. The question then arises as to how this protection is measured and how to choose a sampling plan giving a specified degree of protection. The first part of this question will be discussed now, the latter part below. In the example dealing with payroll vouchers, let it be assumed that the auditor will consider them satisfactory if only one per cent of the vouchers are erroneous. Should more than five per cent of the vouchers be erroneous, however, he would insist on a 100% check.

It has already been pointed out that the auditor cannot be perfectly sure of reaching the desired decisions when using a sample as the basis for action. In that case, he can only ask that the sampling plan furnish him with a high probability of reaching the correct decision. Mathematical methods are available by which one can evaluate the probability of accepting a lot on the basis of a given sampling plan for all different possible quality states of the lot. This relation is called the *operating characteristic* (OC) curve of a sampling plan. It will be recalled that the three sampling plans previously cited furnish the auditor with the same amount of protection; in other words, they have the same operating characteristic curves. One may ask, for instance, what the probability of accepting the lot is—when using these plans—if the proportion of erroneous vouchers in the lot were one per cent. It will be found that this probability is about 95% [7, p. 327]. In other words, the auditor would accept this type of lot, which is considered satisfactory, about 95% of the time under these plans. About 5% of the time these sampling plans would lead him to a complete examination of the vouchers when this is really unnecessary. The auditor may also ask how often these three sampling plans would lead him to an acceptance of the vouchers when the quality is really unsatisfactory—5% for this example by assumption. This probability for the three plans is about 5% [7, p. 327]; in other words, about 95% of the time the auditor will be led to reject the lot by the use of these sampling plans if the lot has 5% erroneous vouchers. To be sure, the auditor does not know the quality of the lot—the year's payroll vouchers. If he did, there would be no need for sampling. The sampling plans simply assure him that *if* the quality of the lot is 1% or less, he will accept the lot on the basis of the sampling plans *at least* 95% of the time. If the proportion of erroneous vouchers in the lot were 5% or more, he would *at most* accept the lot 5% of the time. It is in this sense that the protection against incorrect decisions which a sampling plan furnishes is evaluated. The risks of making incorrect decisions embodied in the three sampling plans discussed may be too great for the auditor. This would simply mean that the auditor would have to choose plans which furnish greater protection against incorrect decisions.

The operating characteristic curve, then, spells out for each sampling plan what the probability of acceptance of a lot is, depending upon the quality of the lot. The three sampling tables to be discussed here all make use of measures, which in a sense, summarize the operating characteristic curve succinctly. The *acceptable quality level* (AQL) is used as a measure of specified satisfactory quality. In the previous example, the acceptable quality level was one per cent. Sampling plans may then be constructed so that the probability of accepting a lot meeting this specified quality is at least, say, 95%. They may also be constructed so that the total inspection is minimized if the quality of the lot being examined is equal to the acceptable quality level. Another measure of the protection furnished by a sampling plan is given by the *lot tolerance per cent defective* (LTPD). This rather imposing term simply refers to that quality level of the lot which an auditor specifies as unsatisfactory. In other words, an auditor would wish to reject the lot if its quality level were as poor as the lot tolerance per cent defective. Generally, a 90% probability of rejection is associated with the lot tolerance per cent defective. For the previous sampling plans, the lot tolerance per cent defective is about 4.25%. This means that these three sampling plans will lead to a rejection of the lot about 90% of the time if the quality of the lot is as poor as 4.25%. The acceptable quality

level and lot tolerance per cent defective thus summarize for the auditor the extent of protection which a sampling plan furnishes against making incorrect decisions.

One further concept should be explained before undertaking a description of specific sampling tables. It refers to the quality of the lot, or of specific accounting records, after the auditor's examination. For example, if the payroll vouchers are of high quality, the auditor will accept them most of the time on the basis of the sample. Indeed, the quality may be slightly improved by correcting the erroneous vouchers in the sample. If the quality of the vouchers is poor, the sampling plan will generally lead him to reject the lot, and the subsequent 100% examination is supposed to eliminate all errors. If the lot submitted is of mediocre quality, however, and accepted on the basis of the sample, its quality after the examination will not be as high as in the previous instances. The worst possible quality, which *on the average* can exist in the vouchers after the auditor's sampling inspection—provided rejection of the lot leads to a 100% examination—is called the *average outgoing quality limit* (AOQL). The average outgoing quality limit for the three sampling plans discussed previously is between 0.9% and 1.5% [7, p. 327]. If these plans are used, in other words, together with 100% inspection of rejected lots, the proportion of erroneous vouchers after the audit will, on the average, be at most between 0.9% and 1.5%, *regardless of the quality of the submitted vouchers*. If the quality of the payroll vouchers submitted is generally good, the average quality of the vouchers after the audit will, of course, be better than this maximum limit.

With this background of basic notions, the discussion will now proceed to a description of some of the available sampling tables and how they may be used by the auditor.

DODGE-ROMIG TABLES

The Dodge-Romig tables [9] provide sampling plans for both single and double sampling. Tables I and II [9, pp. 70–81] are classified by *lot tolerance per cent defective* and they will be of primary concern here. Suppose that an auditor decides that he wants to be rather sure of conducting a 100% examination of the payroll vouchers, previously mentioned, if the proportion of erroneous vouchers is as high as 3%. He would then turn to the section "Lot Tolerance Per Cent Defective = 3.0%" in either the single sampling or double sampling group, depending upon his choice. The Dodge-Romig tables are so designed that the auditor will have a 90% probability of rejecting the lot if its quality is 3.0% defective [9, p. 32]. The auditor must also decide what constitutes an acceptable quality level (AQL), here called the *process average*. Suppose that 0.5% is an acceptable quality level for payroll vouchers. The auditor then simply enters the table for Lot Tolerance Per Cent Defective = 3% under the process average = .31% − .60% and will find his sampling plan, depending upon the lot size. It was assumed above that there were altogether 5000 payroll vouchers. The appropriate single sampling plan will then be [9, p. 71]:

n *sample size*	c *acceptance number*
260	4

This means that the auditor should select 260 vouchers at random. He should then accept the lot if no more than 4 vouchers in the sample are erroneous; otherwise he should reject the lot. The simplicity of finding a sampling plan without the need of any calculations is apparent.

If an auditor knows the past error rate in payroll vouchers and considers it reasonable, he should enter the Dodge-Romig tables using that rate as the process average. A particular merit of the Dodge-

Romig tables is that the amount of inspection which must be performed by an auditor will be minimized, on the average, if the past quality level in the payroll vouchers has remained the same for the current audit period [9, p. 30]. The amount of inspection by an auditor includes not only the vouchers in the sample but the entire lot if the sampling plan leads to rejection. In other words, if the auditor conducts a 100% test when the sampling plan leads to the rejection of the lot, his amount of total inspection is, on the average, minimized by these tables provided the quality level at present is the same as in the past. If the current quality level differs from that in the past, these tables will not provide minimum inspection, though the protection against making incorrect decisions remains the same.

The doubt sampling plan for the previous example is [9, p. 77]:

Sample	*Sample Size*	*Combined Samples*		
		Size	*Acceptance Number*	*Rejection Number*
First	150	150	1	7
Second	230	380	6	7

The interpretation of these instructions is similar to that of the previous plans already discussed. It should be made clear again that this double sampling plan gives the same protection and has the same minimum inspection feature as the single sampling plan just presented. Its advantage is that double sampling requires less inspection than single sampling, on the average, in many instances.

The Dodge-Romig tables also provide plans for single and double sampling, where the auditor specifies the average outgoing quality limit (AOQL) which he desires, rather than the lot tolerance per cent defective. These plans do not seem to have as much meaning for the auditor, however, since he is generally interested in each lot or audit job separately. Under this condition, the lot tolerance per cent defective tables are more meaningful [9, p. 38] and hence are the only ones discussed in this paper.

STATISTICAL RESEARCH GROUP, COLUMBIA UNIVERSITY TABLES

The tables prepared by the Statistical Research Group, Columbia University [7] differ in some features from the Dodge-Romig tables.

In the first place, the Columbia tables make use of varying inspection levels. There are five different levels of inspection numbered I through V, inspection level III being the one ordinarily used. If the auditor needs particularly strong protection against accepting an unsatisfactory lot, as for instance in the audit of cash disbursement vouchers, he would make use of inspection levels IV or V. On the other hand, he could use inspection levels I or II for those audit areas where his need for this type of protection is not great.

Suppose that an auditor is sampling cash disbursement vouchers and desires to use a higher inspection level than the normal one, say inspection level IV. To find the appropriate sampling plan, he must first enter a table [7, p. 217] and find the sample letter corresponding to inspection level IV for the lot size under study. Let it be assumed that 3000 disbursement vouchers are to be studied. For this lot size, inspection level IV requires sample-size letter "K." There are many sampling plans, though, with this sample-size letter. The other specification which the auditor must, therefore, make in the Columbia tables is that of the acceptable quality level. Let this be 0.75%. In other words, an error rate of 0.75% is satisfactory to the auditor. The Columbia tables are so designed that the auditor has a probability of 95% of accepting the lot, if its error rate is equal to the acceptable quality level [7, pp. 22–23]. The auditor then must find

that sampling plan for sample-size letter K which has an acceptable quality level of 0.75%. The tables are so arranged that one can find this particular plan easily by merely leafing through the pages, the characteristics of each plan being clearly indicated. Each page contains a range of acceptable quality levels and the auditor must find the range into which his acceptable quality level falls. For sample-size letter K and acceptable quality level range 0.65%–1.2%, the auditor will find on the same page the appropriate single, double, and multiple sampling plans, each of which will furnish him with approximately equal protection against making incorrect decisions. The sampling plans for the above requirements, incidentally, are those cited at the beginning of the paper [7, p. 327] and already explained. The auditor must choose between single, double, and multiple sampling depending upon the particular circumstances of the problem. Again, it is apparent that the choice of a sampling plan from these tables is not a complicated process.

Several features of the Columbia tables are noteworthy. For each set of sampling plans, the operating characteristic curves are drawn. This means that the auditor can use the Columbia tables simply by choosing the operating curve which he desires. Immediately above it he will find the corresponding sampling plans.

The Columbia tables permit the use of reduced and tightened inspection, depending upon previous quality experience [7, pp. 120–125]. In the earlier example of the audit of cash disbursement vouchers, it was assumed that the auditor would ordinarily use inspection level IV. Should the auditor know from previous examinations that the quality of these vouchers has been good and that the system of internal control is satisfactory, he may use reduced inspection by lowering his inspection level, perhaps to level II. This reduces the required sample size substantially. On the other hand, if internal control and previous quality experience is poor, he may use tightened inspection either by reducing the acceptable quality level or by raising the inspection level to level V (for this case). The latter alternative increases the sample size and therefore also the cost of the initial examination. The problem of setting standards as to when reduced or tightened inspection should be used is an important one, but cannot be discussed here.

The Columbia tables, in summary, incorporate a standard procedure of selecting a sampling plan, based upon the acceptable quality level and upon the inspection level. Flexibility is built into the set of tables by the use of tightened and reduced inspection.

DEPARTMENT OF DEFENSE TABLES

This fundamental approach is also found in the Department of Defense tables [10], the newest of the three tables cited in this paper.

The Department of Defense tables provide only three levels of inspection as compared with the five levels in the Columbia tables. Inspection level II is ordinarily used. An auditor might wish to use level III for an audit of, say, cash disbursement vouchers where he would want greater protection against accepting lots of unsatisfactory quality.

The acceptable quality level in the Department of Defense tables simply refers to an acceptable quality level; there is no reference to a given probability of accepting lots with such a quality level on the basis of the sampling plan [10, p. 2].

The procedure in finding the appropriate sampling plan is analogous to that of the Columbia tables. The auditor finds the sample-size letter on the basis of the inspection level and lot size. He then locates the sampling plan for his acceptable qual-

ity level and sample-size letter, choosing single, double, or multiple sampling depending upon the particular circumstances. The plans can be located either in separate summary tables for single, double, and multiple sampling, or in tables which present the three types of plans together. For a given inspection level and acceptable quality level, all three types of sampling plans provide essentially an equal amount of protection against the making of incorrect decisions [10, p. 4].

The Department of Defense tables are accompanied by rigid instructions as to when tightened or reduced inspection is to be used. These instructions will probably not, however, meet the requirements of the auditor. Nevertheless, the Defense Department tables, like the Columbia University ones, can be made flexible according to the auditor's needs. Operating characteristic curves are also provided for all sampling plans [10, pp. 19–51], so that the auditor might choose his sampling plan by selecting the operating characteristic curve which is accompanied by the appropriate sampling plans.

It should be added that many of the sampling plans in the Columbia and Department of Defense tables are identical since the latter were partly based on the earlier Columbia tables [11, pp. 1–7]. The Department of Defense tables are somewhat broader in scope than the Columbia tables, as will be pointed out shortly.

IMPLICATIONS FOR THE AUDITOR

The existence of sampling tables, such as the ones here discussed, often precludes the necessity of computational work by the auditor in designing a suitable sampling plan. All the tables cited in this paper provide sampling plans for a wide variety of situations which might be encountered by an auditor. Occasionally, an auditor may have a particular need which is not met by existing tables. In that case a special sampling plan would have to be designed for him. Ordinarily, however, this will probably not be necessary.

The auditor is not limited in the use of these tables to consider an item erroneous regardless of the type of error. He may classify different types of errors as major and minor ones, and apply separate sampling plans to each type. Major errors would presumably have a lower acceptable quality level or lot tolerance per cent defective than minor ones. The inspection level for major errors in that case should be used also for minor ones in order that the sample size be the same for both types of errors.

The Department of Defense tables are designed so that they can also be used by the auditor if he is interested in the number of errors per unit, e.g., number of errors per voucher. In that case, the acceptable quality level simply refers to the acceptable number of errors per hundred units. The Dodge-Romig tables also explicitly provide for this type of use [9, pp. 4–5].

It should be emphasized that the sampling tables here discussed cannot be used in all circumstances. They apply only if the auditor measures quality in terms of erroneous entries, vouchers, etc., or in terms of number of errors per entry, voucher, etc. A recent attempt to use this type of theory in connection with the *amount* of errors [1, pp. 92–93] is, consequently, incorrect. Statistical methods are available which may be useful to the auditor in determining the amount of errors in the accounting records, but space does not permit a discussion of them here.

Another area where the sampling tables do not apply is that of stratified sampling. An auditor may be examining the accounts receivable of a business with a large number of branches. The sampling tables cannot be used to determine the best allocation as to how many branches the auditor should select at random and how many ac-

counts receivable should be confirmed for each selected branch. Statistical techniques are available, though, which can aid an auditor in this problem.

While there are definite limitations in the use of the sampling tables discussed in this paper, it nevertheless appears clear that these tables can be of great help to the auditor. The selection of an appropriate sampling plan becomes simple, indeed, with the tables. With the use of these sampling tables and of other statistical tools, the auditor should be able to improve his sampling techniques in his audit with probably a concurrent reduction in the cost of the audit.

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INTERNAL AUDITING COURSES IN AMERICAN COLLEGES

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IN THE PAST FEW YEARS a score or more of our American colleges have begun to offer courses in internal auditing. Recognizing the increasing importance of this field of instruction, the American Accounting Association in 1951 set up a Committee on Cooperation with the Institute of Internal Auditors. One of the first projects of this Committee was a survey of internal auditing courses based on a questionnaire sent to appropriate persons in a sample of our colleges. The results of this survey are reported below.

Walter B. Meigs, in his recent article, "The Expanding Field of Internal Auditing," in the ACCOUNTING REVIEW (October, 1951), described the activities of the modern internal auditor and contrasted them with those of the old-time audit clerk or traveling auditor, with whom the internal auditor is sometimes still confused. Yet there seems to be a rather widespread lack of understanding among accounting teachers concerning the field of internal auditing and the possible content and importance of a course in that subject. Therefore, before reporting the results of the Committee survey, it may be in order to review briefly the nature of internal auditing and the material available for use in a college course.

SCOPE OF INTERNAL AUDITING

The Institute of Internal Auditors, formed in 1941, is a professional organization of well over two thousand members, most of whom are engaged in the practice of internal auditing. On July 15, 1947, the Institute's Board of Directors approved a *Statement of the Responsibilities of the Internal Auditor*, which has this to say concerning the nature of internal auditing:

> Internal auditing is the independent appraisal activity within an organization for the review of the accounting, financial, and other operations as a basis for protective and constructive service to management. It is a type of control which functions by measuring and evaluating the effectiveness of other types of control. It deals primarily with accounting and financial matters but it may also properly deal with matters of an operating nature.

Consideration of this paragraph may dispel some of the confusion between the activities of the internal auditor and the independent public accountant, and then serve to suggest an appropriate content for the internal auditing course.

An "independent appraisal activity" suggests the separation of internal auditing functions from routine accounting, financial, and other operations. Internal auditing is a staff, or advisory, function. The internal auditor generally has no authority to cause entries to be made or reversed; he does not set up or enforce operating procedures. He should report to an officer of sufficient stature in his firm so that his findings and recommendations receive adequate consideration by operating management, which will issue such directives as it deems appropriate. The internal auditor cannot achieve the same degree of independence as the public accountant, but he must avoid becoming involved in routine procedures if he is to carry out his function of independent appraisal.

Operating "within an organization" the internal auditor is an employee, whereas

the public accountant is an independent contractor. There is a popular misconception that internal auditing is the same as the work performed by the outside auditor. Many suppose that the work of the internal auditor largely duplicates that of the public accountant, or that by having an internal auditing staff, the cost of the public accountant's audit will be materially reduced. But the point of view of the internal auditor is actually quite different from that of the public accountant, and consequently his work is directed largely toward other ends. For example, the public accountant audits final balances in order to express an opinion thereon. He considers the routines through which those figures were developed primarily to help evaluate their reliability. The internal auditor begins with the routines and investigates the compliance with established procedures, concerning himself with the resulting figures only incidentally. The internal auditor is responsible only to his management, while the independent accountant has responsibilities to outsiders as well as to his client. The internal auditor should develop a more specialized understanding of his own firm, and the public accountant should have a broad knowledge of the operations of other firms. It is true that some phases of the work of both may be similar, such as the reconciling of bank accounts, confirming receivables, and participating in the taking of inventories. In these areas their work must be coordinated so that both are satisfied with a minimum of duplication and unnecessary expense to the firm.

The breadth of internal auditing is outlined in the phrase, "review of accounting, financial, and other operations," and emphasized again in the third sentence, "It deals primarily with accounting and financial matters but it may also properly deal with matters of an operating nature." The internal auditor is naturally expected to review accounting and financial matters. The extent to which he concerns himself with other operations depends on his training and abilities and on the organization of which he is a part. In general, the larger the firm and the more remote top management becomes from operations, the more the internal auditor will investigate non-accounting and non-financial matters. He is expected to serve as the eyes and ears of top management throughout all of the business activities and to report back to it the things management should know. To do this without getting himself castigated as a spy or an officious busybody by the lower echelons of management requires a keen appreciation of his task and the utmost of tact and judgment on the part of the internal auditor.

Two important phases of the work are mentioned as "protective and constructive service to management." The internal auditor is concerned with protecting his firm's resources and in helping to see that they are used as effectively as possible. He reviews and suggests improvements in systems of internal control in an effort to prevent irregularities, rather than concentrating on detecting frauds after they have occurred. His close observation of company practices and his wide acquaintance with company personnel in different locations enable the internal auditor to make many constructive suggestions to management.

The second sentence in the quoted paragraph indicates the *modus operandi* of the internal auditor. He checks compliance with established routines and procedures and then evaluates their effectiveness in order to make constructive criticisms and recommendations to management. He does not perform such routine activities as verifying accuracy of payroll calculations or of extensions and footings on invoices before payment as part of the normal procedures. He does of course test the accuracy of these items as a part of his auditing

work. But internal auditing is superimposed on these other types of controls and should not take the place of any of them in relieving operating personnel of the responsibilities for proper routine operations.

CONTENT OF INTERNAL AUDITING COURSE

Many teachers seem to believe that the techniques of internal auditing and of independent (public accounting) auditing are so similar that they can be covered in one course. General auditing courses often concentrate on the excellent literature of the American Institute of Accountants, which is developed almost entirely for the independent public accountant. Internal controls may be given prominent treatment in this course, but the specialized nature of internal auditing is not fully explored, if indeed it is understood and mentioned at all.

The foregoing discussion of the scope of internal auditing suggests that the subject deserves full scale treatment in a college course specifically devoted to that purpose. A one-semester course in basic auditing techniques might be taken by both prospective public accountants and prospective internal auditors. A second one-semester auditing course of the traditional type might be required of the public accounting group, and a course more suited to their needs might be offered for the internal auditors. This latter course might well be taken by all students intending to pursue industrial accounting careers, since it would deal largely with management controls.

The course in internal auditing might devote some time at the start to a consideration of the history and present scope of internal auditing. Internal controls of all types should be discussed next, including those operated to prevent frauds and those designed to insure better management of business operations. Some time should be devoted to a review of auditing principles and procedures as they apply to the work of the internal auditor. Major portions of the course should be spent on the techniques of functional audits and the possibilities for special services to management which are open to the internal auditor. All this would seem to be sufficiently different from the needs of the public accounting student to warrant a separate course, which would be beneficial not only to internal auditing students but to all industrial accountants as well.

INSTITUTE EDUCATIONAL ACTIVITIES

One of the principal objectives of the Institute of Internal Auditors is educational. The Institute has provided material and encouragement to colleges in setting up internal auditing courses. Its members have on several occasions served as instructors, and in many other cases have talked to classes as guest lecturers. Students have been invited to attend local chapter meetings of the Institute.

Victor Z. Brink, one of the organizers of the Institute, was at that time Associate Professor of Accounting at Columbia University. His text, *Internal Auditing* (Ronald, 1941), was published, and he was teaching an internal auditing course at Columbia, before the Institute was formed. The late John B. Thurston, another founding member of the Institute, summarized current practices in his *Basic Internal Auditing* (International Textbook Company, 1949). Many other members have helped to develop the subject in talks before annual conferences of the Institute, which have been published in their successive yearbooks, or in articles appearing in the Institute's quarterly journal, *The Internal Auditor*. (This is now available to students at a special rate of $1.00 per year.) Institute members have of course contributed articles to other journals, and persons not members have been encouraged

to write articles and papers on the subject.

Specifically to help schools in starting courses in internal auditing, the Institute published an *Instructor's Manual for a College Course in Internal Auditing* (1948). This is currently being revised. In 1950, Victor Z. Brink and Bradford Cadmus edited a volume of industry case studies prepared by committees of interested members, under the title, *Internal Auditing in Industry*. Additional case material is nearing completion.[1]

The United States Steel Corporation has taken an active part in the development of courses in internal auditing at the University of Pittsburgh and at other colleges located near its operations. Two of its officers, W. A. Walker (Vice-President, Accounting) and W. R. Davies (Director, Audit Division), wrote *Industrial Internal Auditing* as a text for these courses. This was published privately (1949) by the United States Steel Corporation, and has been republished (1951) by McGraw-Hill Book Company, Inc.

AMERICAN ACCOUNTING ASSOCIATION COOPERATION

In order to cooperate more effectively with the Institute in its educational program, the American Accounting Association in 1951 set up the Committee on Cooperation with the Institute of Internal Auditors. Among other things, members of this Committee in their first year consulted with Institute officials, met in Denver at the annual meeting of the American Accounting Association, and met again in New York with the Institute's Educational Committee, where they attended the Institute's 1951 Annual Conference. Through these contacts a firm basis was laid for even closer cooperation in the future.

[1] Those interested in learning more about or obtaining the Institute's educational materials should contact Bradford Cadmus, Managing Director, 120 Wall Street, New York 5, New York.

SURVEY OF INTERNAL AUDITING COURSES

As a member of the Association's Committee on Cooperation, the writer prepared a questionnaire which was sent in May, 1951, to 135 representative colleges in all parts of the country, to find out what was being done with internal auditing courses in these institutions. Replies were received from ninety-five colleges, of which sixteen[2] were already offering internal auditing courses, and thirteen more were considering such a course.

Sixty-six replies were from colleges which neither offer a course in internal auditing nor plan to offer one in the near future. Some individuals answering for this group felt that this course might be desirable in a larger school or in one with a more varied accounting curriculum, but was not suited to their own institution. Others felt emphatically that there is no place in any accounting curriculum for a course in internal auditing. Many who answered the questionnaire indicated they did not understand the scope of modern internal auditing, while several suggested that the subject is already covered adequately in the traditional auditing courses.

Of the thirteen colleges considering a course in internal auditing, at least one was planning to offer it first in the spring of 1952. Several were considering it only as part of rather general curriculum revisions to take effect in the indefinite future, while others had more definite plans. This group generally indicated a desire to learn more about internal auditing courses already being offered and to obtain materials and suggestions.

[2] These colleges are: Atlanta University Graduate School of Business; Brigham Young University; Butler University; The City College of New York; Columbia University; Golden Gate College; Northwestern University; Ohio State University; Oregon State College; Rider College; St. Louis University; University of Alabama; University of Florida; University of Southern California; Western Reserve University; Wharton School of Finance and Commerce.

Considerable variation appeared in the length of the courses now being offered in the sixteen colleges. Six were either two semester hours or three quarter hours credit; seven were three semester hours; two were four semester hours; and one was nine quarter hours.

Four colleges limit enrollment to graduate students and five others offer the course for graduate credit. Seniors are admitted in eleven cases, and juniors in only two. In six cases a general course in auditing is a prerequisite; in ten cases it is not. Thirteen colleges offer the course once a year, three offer it two or more times. In two colleges the course is also offered through the extension division.

One of these colleges first offered an internal auditing course in 1941. The next earliest began in 1946, followed by two in 1947, three in 1948, four in 1949, one in 1950, and three in 1951, with one indicating no starting date. None of the ninety-five colleges replying to the questionnaire had stopped scheduling a course in internal auditing after having once offered it.

Approximately three hundred students were enrolled in the internal auditing courses in these sixteen colleges during the academic year 1950–1951. Of these, twenty-six were known to have taken internal auditing jobs after graduation, while data were lacking on most of the others.

In half of the cases, the instructors are men engaged in the practice of internal auditing, one course being taught by sixteen different practitioners. The other half are taught by full-time faculty members, several of whom have had some practical experience in internal auditing. Students in five of the courses go on field trips to observe internal auditing in practice. Practitioners other than the regular instructor are brought in to address students in nine cases. Students from four colleges have attended meetings of local chapters of the Institute of Internal Auditors.

Thirteen of the colleges use one or more of the three principal texts in internal auditing: Brink, Thurston, or Walker and Davies. One uses Anderson's *Practical Controllership*, one uses *Auditing*, by Byrnes, Baker, and Smith, and one did not indicate what text is used. Several use the American Institute of Accountants' case studies on internal control, and the material published by the Institute of Internal Auditors. In contrast, several colleges indicated either that no outside reading was required of the students, or merely that reading was required in the various accounting journals. Of those submitting reading lists, one had four typed pages of suggested books and articles.

Only one college indicated that no problems are required in its course, although two failed to answer this question. Several require term problems; one has the students submit notebooks containing digests of their readings; and one has each student prepare for and participate in at least one panel discussion. One instructor requires his students to take the American Institute level II examination.

Comments were rather general concerning the lack of published problem material in internal auditing. Brink and Thurston have no problems in their texts. Walker and Davies have only five case problems, one of which has an accompanying illustrative solution. Some instructors have developed their own problem material, in several cases from their own practice, and in at least one case, from material obtained through the Institute of Internal Auditors. Replies indicated a real need for more problem material of this nature to be made available in published form.

Only two special teaching devices were commented upon by those answering the questionnaire. One instructor, whose

classes last two hours, has selected students conduct a panel discussion on assigned topics during the first hour, and devotes the second hour to discussion of assigned text material.[3] Another uses various "props" simulating actual audit conditions, such as a petty cash box containing play money, cashed checks, and paid out slips, which students are required to count as though making an audit, together with the daily bank deposit made up of the currency and checks of the preceding day's receipts.

[3] For all the details, see: Frank A. Lamperti, "A Neophyte Teaches School," in *The Internal Auditor*, (Sept., 1951), pp. 38–47.

CONCLUSION

The World War II years brought about an increasing recognition of the importance of internal auditing in industry, a corresponding need for trained personnel, and, logically, an increasing interest in internal auditing instruction in colleges. Internal auditing courses are now offered in more than a score of American colleges, with several more known to be planning to offer such courses in the near future. The Institute of Internal Auditors and the American Accounting Association are cooperating actively to develop needed teaching materials and to spread information on the subject. Educators should be alert to the possibilities for service in this field of growing importance.

SOME ACCOUNTING LIMITATIONS OF STATEMENT INTERPRETATION

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THE FINANCIAL STATEMENTS of a business enterprise do not reflect *the* economic condition of the enterprise, but from these statements a skilled analyst may draw information which will assist him in arriving at conclusions regarding the economic condition of the enterprise. A business enterprise, like a human, has a personality which has values and resiliency not measurable in dollars and cents. Everyone knows of numerous firms that should have failed miserably but succeeded grandly instead, just as everyone knows of firms with every chance of success which were dismal failures. In a sense this is an indictment of accountants and in a sense it is an admission that certain economic factors may not be subject to a generally understandable accounting expression. This lack may also be attributable to preoccupation by accountants with a more basic function of accounting. Although statements do not supply all of the information necessary to form a complete picture of the economic condition of an enterprise, statements are portrayals of economic facts and activities selected and arranged to serve practical needs of interested parties.

Accountants advocating elaborate reforms should be warned by Wesley Clair Mitchell who said, "One who elaborates statistical series in ingenious ways may get as far out of touch with reality as one who excogitates a set of speculative assumptions."[1] Truly, statements can be of little value for some purposes unless they rest upon objectively determined facts. It is one phase of objectivity that is the subject of this paper; namely, reporting the facts so that actions may be judged.

A modern large-scale business must operate by delegation and redelegation of powers, functions, and duties. Delegation, however, is not irrevocable and abuse of delegated powers should not go unpunished. Coupled with assignment of authority there must be an accountability or responsibility which will be tested by the results of exercised powers. Whether a particular delegation of powers will continue will depend upon how effectively the powers were used. From the stockholders on down through the board of directors to the lowliest gang foreman, results are the measure. Accounting, as the tool of management, must be primarily concerned with reporting for the use of powers—now the subject of much study under the caption of "cost control" or "operation control." It may well be that accountability in this sense is the primary purpose of accounting.

Since it is here proposed to broaden the meaning of the word accountability, it is necessary to refer to its customary meaning. Accountability has been used to indicate the responsibility of a fiduciary for the properties placed at his disposal, and the term, as used, implies a minimum of interest in the nature of the claims against such properties. The fiduciary must not, of course, by his actions prejudice the rights of any one group in favor of another group of claimants. The word accountability carries with it an implication that a day of reckoning with a higher authority

[1] As quoted by John N. Myer, *Financial Statement Analysis*, p. xiii.

is in the offing. While delegation of powers in an ordinary business situation may not be conferred by a court and the delegate may not hold legal title to the property he administers, nevertheless the principal elements of accountability are present in large-scale enterprises—assignment of administrative duties coupled with a day of judgment of honesty and efficiency. Competition and the profit motive in the business field place efficiency not on the average or normal basis of an ordinary fiduciary but on a comparative basis which greatly influences the position and progress of the executives.

The accountant is concerned with accumulating and reporting the information needed at these days of reckoning. How shall a man be judged? Surely a man is responsible for his own actions and for actions of his subordinates, against a background of economic circumstances. A purchasing agent who lets stocks accumulate must be ready to justify his position relative to current business conditions. The accountant, then, must report the fact of the accumulation and ultimately the facts of the disposal of the accumulation. By all means, care must be taken that the reporting devices shall not color the facts. The judgment must be based upon the facts of what happened in the economic context. Danger lurks when the facts are modified to reflect economic circumstances, for judgment must again take into account such circumstances.

It is clearly recognized now that control must originate at the level of activities. Frequent reports must be made as to the operation of each gang of employees, as to the operation of each material and property unit, and as to each general function unit. These reports must be scrutinized and compared with standards of performance by the foremen on the first level of authority so that modifications may be immediately instituted. Information derived from these reports must be assembled by operations, by jobs, and by departments for examination by the level of authority immediately responsible. Ultimately the over-all product cost will result from these subassemblies for the information of the plant superintendent, the general manager, and with other information for the board of directors. It should be noted that the final reports tend to be developed by a pyramiding of the data originating in the several levels of responsibility. If this were not so there would be much duplication of effort in assembling information and great difficulty would be encountered in tracing causes for variation from final reports back to the ultimate causes.

Accountability seems to explain objectivity and its product the cost basis of valuation. Whether cost measures value or not, it does measure involvement of resources. It is not until use of resources has been matched against results that efficiencies of administration are generally discernible. Thus accountants do not anticipate profits by recognizing earnings accruing except when there can be no question of the amount of the result. In a way, too, accountability explains management's preoccupation with conservatism since it is only natural to wish to reduce the burden of responsibility. Because conservatism is considered as safer than its opposite, accountants condone and even encourage a conservatism which may sometimes obscure accountability. When management is effective and profits are large, a device calculated to understate current profits and overstate subsequent profits may be popular, for by this means future inefficiencies may be at least partially covered up. While conservatism may be motivated by accountability, where conservatism flourishes accountability is lost. Understatement of resources committed is a disclaimer of responsibility for that portion

of the resources—a denial of accountability without relief being granted by the next higher step of authority—an immediate concealment planned to perpetrate future concealment.

Nor is accountability purely an internal administrative matter. The executives of a business are responsible to the board of directors and the board is responsible, acting for the corporation, to the stockholders and creditors for values committed to their administration. The executive officers selected by the board of directors report their actions on an over-all basis as well as by special studies. It would seem that on this level, as well as on lower levels, objective reporting of deeds performed and of deeds as yet uncompleted should form the basis for judgment as to whether to continue the same management and the same policies. A special problem develops in the last stage—the report to stockholders and creditors.

Investors in large corporations are very often primarily concerned with short-run changes in their firm which cannot be affected greatly by changes in management or long-run policy. It is also generally true that greater effort would be required to obtain the voting-power needed to effect a change of administration than the uncertain results of a change in administration could justify even to fairly large holders. In many cases there are relatively large interests closely associated with management or constituting itself as management which exercises effective control. To the board of directors and to large long-run interests, the discharge of delegated authority is an important consideration. This body, however, is really a delegate of authority and may not be required to account for its deeds to any organized final authority. Truly they may be held for any breaches of honesty, but inefficiencies, if detected, will at most merely affect the market value of the securities rather than their positions of authority. It is not the purpose here to complain of this state of affairs or to suggest reforms. Rather the accountant must be concerned with the ramifications of this lack of enforced accountability.

But this is by no means the whole story. The final step in reporting—reports to stockholders—cannot follow the above pattern of accountability for several reasons. In the first place, the judgment at this level is not direct. A bad report is more likely to affect the price of shares than it is to affect the pay, position, or freedom of action of management immediately. In the second place, the readers of these statements have less personal knowledge of the internal workings of the firm and generally less ability to read statements than on lower levels of accountability. In the third place, stockholders occupy the final level of responsibility and need not fear action by any superior for any mismanagement of the firm. And finally, the economic context of the actions undertaken may not be as clearly grasped by this group. It might also be stated that lack of skill in interpretation on the part of the stockholders together with the above shortcomings has led to report simplification and the supplementing of conventional statements with analytical or interpretive devices.

Although the concept of accountability here developed is not revolutionary, it may help to resolve some of the general problems up for current debate such as the perennial LIFO controversy, the single-step income statement, the working-capital balance sheet, the question of value revision, and others. It is in this area that the question of responsibility for actions is often treated as being less important than the bearing of such actions upon future prospects.

The effect of LIFO on accountability is fairly clear. LIFO tends to understate in-

ventories thus relieving the future of charges it should bear, for inventories are, after all, management's gamble as to future operations. It is true that the LIFO manipulation charges past successes for future speculations and it may be argued that successes and failures must be averaged out before judgment is rendered. Yet, it would seem that the averaging out of success and failure should be deliberate rather than a concealed matching of a little success against a little failure to produce an appearance of success as dominant and failure as never severe. LIFO, of course, was not designed to show responsibility for the results of stock planning but to show the effectiveness of the pricing policies and to carry the income statement a little closer to a current value basis.

A matter of current importance in view of the recent "Regulation S—X"[2] revision is the question of intermediate profit representations in the income statement. For control purposes on the departmental level there must be operating data subdivided by activities. On an over-all basis, on the other hand, responsibility may not be discharged by allowing management or accountants to decide that there are various degrees of responsibility and even no responsibility for such items as surplus charges. There are some interesting points involved here. At first glance it would appear that a gain or loss on disposal of plant assets arising from errors in the depreciation plan should not be a matter of current responsibility, however, if the responsibility is not made a part of the general report of activities those in authority will never be brought to a reckoning and their efficiencies may be materially miscalculated. In a similar fashion general management is responsible for all activities. To say that a profit was made on general or principal activities and a loss was made on sideline activities is to say that general management is less responsible for the one than for the other. Or to say that certain charges should be deducted after arriving at an operating profit is to say that management is less responsible for these charges. Again it should be noted that the primary consideration at this point in the analysis is accountability rather than economic forecasting.

There are several ramifications to this question of showing discharge of responsibilities in the income statement. Once management has been held responsible for an action, should that action continue to affect the reporting of efficiency? Depreciation on an asset acquired at a high price level will continue to plague executives for many years. Many executives were purged of their errors of the 1920's by the quasi-reorganizations of the 1930's. They did not escape responsibility but met it head on and had it over. In less extreme cases appearances of lack of planning or poor planning may be only temporary and the long-run picture may show clear justification for a plant expansion program in spite of a temporary embarrassment. Another problem in this same area is more difficult. Should one management be held responsible for the errors of a preceding management? Plants acquired at high cost may be a constant bar to a reasonable profit showing. This is not all one-sided for a wise predecessor may leave a rich legacy of wisely accumulated resources. If there is a decided break with the past and a new management institutes a whole new set of policies, something similar to a quasi-reorganization might be undertaken. On intermediate levels a mere appraisal of certain items may satisfy all parties.

This may seem to be getting far afield from the question of reporting several different profit figures, but it is all a part of

[2] United States Securities and Exchange Commission, March 12, 1951.

the question as to whether there are various levels or degrees of responsibility in the income statement. Whatever the answer may be, at least it must be admitted that there are dangers in a device that centers attention on results which can be greatly and permanently affected by accounting prorations. There is no great difficulty in finding cases in which the reported net operating profit year after year is greater than net profit. When unusual charges are a regular part of the pattern they are no longer unusual charges.

The income statement is not the only statement in which opportunities for obscuring accountability are readily available. As was mentioned before any overabsorption of costs in expenses denies future responsibility for resources. A new element has recently been introduced in the balance sheet—or rather a variation of a very old method long out of service—to stress certain relationships. It should be noted that balance sheet accountability, being more than responsibility for cost involvements, includes the financial plan as well. Too much attention in reporting relationships of the parts to each other may give no picture at all of the general pattern of the resources or of the financial sources. In one 1950 balance sheet[3] total liabilities of $80,000,000 out of $250,000,000 of all equities was divided up into three different offsets against levels of assets and never shown in total or even in such a manner that a novice could realize the total debt position and no single subdivision of obligations was more than $33,000,000. In a well-managed business there should be a coherence in the asset scheme and there should be a planned financial structure. These two prime essentials are certainly difficult to visualize from the working-capital balance sheet or the multiple-step balance sheet.

Applications of the notion of accounting as a tool to test the proper uses of delegated powers are nearly endless. One further application and some additional comments on the imperfections in accountability at the last level of authority seem to be needed. This application has to do with changing price levels.

Objective reporting of the facts tempered by an understanding of the economic context of those facts gives the basis for reckoning efficiency and its product—realized and available profits. The economic context is a resultant of a myriad of forces, activities, and conditions. Although stemming from objective circumstances, economic conditions are contemporaneously uncertain and can be evaluated only by a subjective appraisal. To allow objective data of an enterprise to be adjusted arbitrarily or automatically for economic fluctuations might not improve the significance of the reports for any purpose and certainly would tend to impair some aspects of accounting for responsibility. A thorough overhauling of the values such as was suggested by Sweeney would preserve most of the essential accountability elements—even improve some—but would relieve management of the blame for guessing wrong about changing prices, or not give credit for guessing right. In the business world, as presently constituted, management must guess and the results of guessing are often crucial.

Mangerial efficiency is an important factor to all investors. In the short-run, estimates of the market for the product and estimates of the value of resources may vary considerably from the amounts reported on an objective basis. Unless management can employ resources to produce a reasonable rate of return on the current value of the resources, there may be a question not only as to whether management is keeping up with the times but

[3] Caterpillar Tractor Company, Corporate Report 1950.

also as to whether there is a current economic justification for the business. Use of LIFO as an inventory valuation method may be of some help in determining the relationship between current product demand and current cost requirements. This type of analysis together with current capital valuation is required information for an investor who wants to take advantage of a temporary situation, and will be valuable to any investor if a change in management or in policy is contemplated.

This study was undertaken to examine an aspect of accounting that is currently receiving much attention—accounting controls. It is not a new topic for it seems that most of present day methods and procedures have developed to serve the purposes of control. By referring to this branch of accounting as accountability it is intended to lend the sanction of acceptance and to broaden the scope so that some of the ultimate aspects of accountability may be examined. Again let it be noted that accounting is a tool of management but that is not the sole function of accounting. The importance of maintaining the integrity of the methods and procedures required for purposes of accountability should not be overlooked in the rush to change the statements to take into account general variations in the economy.

THE DISPOSITION OF SPECIAL POST-WAR RESERVES AT THE CLOSE OF WORLD WAR II*

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CERTAIN RECONVERSION PROBLEMS that would arise at the termination of hostilities became apparent in the early years of World War II. Because these problems would be the result of production conditions developing from the conversion of industry to a wartime basis, business men and accountants felt that costs of reconversion of industry to peacetime conditions should be charged against wartime revenues. The popular method for attaining charges against wartime revenues was the creation of special reserves, against which could be charged reconversion and other applicable costs as they were incurred after the end of the war.

During the war period many articles were written about the nature and purpose of the special post-war reserves. Most of these articles were based on *Accounting Research Bulletin Number 13* released by the American Institute of Accountants in January, 1942. This bulletin listed eleven purposes for which special reserves might be provided. The purposes, however, may be summarized as follows:

1. Costs of rearranging and reconverting plant and equipment at the end of the war.
2. Accelerated depreciation of facilities as a result of intensive use and accelerated amortization of special facilities acquired for war work.
3. Special inventory losses resulting from war conditions.
4. Repairs and maintenance deferred as a result of intensive war production.
5. Special costs or losses, as separation allowances or losses from the termination of war contracts.

Using these purposes as a starting point, the annual reports of 134 large manufacturing corporations[1] were studied in order to ascertain the extent to which the original purposes were observed in the disposition of the created reserves. The findings, which should be of special interest in this period of rearmament, showed a high degree of misuse of the special post-war reserve and a general misconception of the theory of reserves.

USE OF SPECIAL POST-WAR RESERVES

The original purpose of the post-war reserves of the 134 corporations was to cover the costs of economic reconversion. For purposes of the study, economic reconversion was defined as all of the necessary costs incurred in the transition from a war economy to a peace economy. This definition would include the costs of physically rearranging plant and facilities, retraining and readjustment of employees, accelerated amortization of special war facilities, maintenance deferred as a result of war conditions, special war inventory losses and war contract termination losses.

* Based on a dissertation submitted in partial fulfillment for the degree of Doctor of Commercial Science in the School of Business of Indiana University.

[1] The companies studied were confined within the following limits:
a. The balance sheets of the corporations had to show a special post-war reserve.
b. The corporations had to be listed on the New York Stock Exchange.
c. The corporations had to be manufacturing concerns having total assets of at least $25,000,000.00.

These were foreseeable costs that had to be met at the termination of hostilities. Unfortunately, far too many companies thought more in terms of unforeseeable charges than in terms of costs of converting from a war economy to a peace economy. This was illustrated by the fact that 92 of the companies, about 71%, included the word "contingencies" as a part of the title of the reserve. In their annual reports, in comments setting forth the purposes of the reserve, the companies not only included contingent uses but also stated that the post-war reserve was available for post-war contingencies.

TABLE 1

NUMBER OF COMPANIES CHARGING RECONVERSION COSTS TO SPECIAL POST-WAR RESERVES (1945–1946)

Industry Field	Companies With Special Post-War Reserves		
	Total	Using Reserve for Reconversion	
		Number	Per Cent
Apparel and Textile	2	0	0
Autos and Trucks	9	8	88.8
Auto Accessory	18	15	83.3
Aviation	10	5	50.0
Building Supplies	8	2	25.0
Chemical and Metal Products	16	2	12.5
Food Processors	7	3	42.8
Household Appliances	5	4	80.0
Machinery and Tools	32	10	31.2
Paper Products	4	0	0
Petroleum Products	10	2	20.0
Steel and Iron	12	1	8.3
Tire and Rubber	1	1	100.0
	134	53	39.6

Source: Annual reports of the 134 corporations.

The misconception of the use of the special post-war reserve—as a general contingency reserve—was clearly brought out by the figures arrived at in this study. Table 1 indicates that only 53 (39.6%) of the 134 companies studied used the reserve to cover the cost of physical reconversion. The physical aspect of reconversion would include the cost of dismantling facilities used during the war years, as well as the cost of rehabilitating, rearranging and installing regular equipment stored during those years. The firms so using the post-war reserve were concentrated largely in those industrial areas that had a high degree of conversion to war production—the auto industry, the auto-accessory manufacturers, the household appliance companies, and certain areas of the machinery and equipment industry. Reconversion proved far less of a problem to the producers of aircraft than might have been expected. In studying the companies making up these various industrial areas, it was found that:

1. In most cases the amount provided for the reserve was far in excess of post-war needs.
2. The amount required to cover reconversion costs depended upon the extent of conversion during the war period.
3. Physical reconversion was not so extensive a problem as the size and number of reserves would have indicated.

The broad economic definition of reconversion include five other phases of readjustment. Only a limited number of the corporations studied used the post-war reserve to cover these costs. As shown in Table 2, 28 corporations used the reserve for the amortization of special war facilities, 10 used it to cover maintenance deferred as a result of increased war production, 11 charged war inventory losses against the reserve, 13 used it to cover the costs of labor adjustments in the post-war period and 14 debited war contract adjustments to the reserve. As a company might have used the reserve for more than one of the purposes just listed, including plant and facility rehabilitation, there were, net, only 78 companies that made use of the post-war reserve for its avowed purpose—economic reconversion. Of the other 56 concerns, 20 corporations used the reserve for contingent purposes only and 36 com-

TABLE 2

NUMBER OF COMPANIES USING SPECIAL POST-WAR RESERVE FOR SPECIAL RECONVERSION PROBLEMS (1945–1949)

Industry Field	Number of Companies with Special Post-War Reserve					
		Number of Companies Making Special Use of Reserve for				
	Total	Amortization of Special Facilities	Deferred Maintenance	Inventory Losses	Labor Adjustments	War Contract Adjustments
Apparel and Textile	2	0	0	0	0	0
Autos and Trucks	9	0	0	1	2	1
Auto-Accessory	18	2	0	1	2	2
Aviation	10	1	0	1	0	2
Building Supplies	8	1	0	0	0	0
Chemical and Metal Products	16	6	2	1	1	1
Food Processors	7	1	0	0	1	0
Household Appliances	5	2	0	1	1	0
Machinery and Tools	32	5	4	2	2	5
Paper Products	4	0	0	0	0	0
Petroleum Products	10	3	2	2	0	1
Steel and Iron	12	6	1	1	2	1
Tire and Rubber	1	1	1	1	0	1
	134	28	10	11	13	14

Source: Annual reports of the 134 corporations.

panies made no use whatsoever of the amounts provided.

THE NON-USE OF THE POST-WAR RESERVE

The extent of the non-use of the post-war reserve is indicated in Table 3. In addition to the 56 corporations just referred to, there were, out of the 78 companies that made use of the post-war reserves, 57 companies which showed an over provision. Therefore only 21 concerns made full use of the original reserve provision.

When it is considered that 113 of the 134 corporations or more than 84% of those studied, either failed to use the reserve or made an overprovision, it is easily seen that the non-use of the amounts provided becomes the important point in the disposition of the post-war reserve. This is strengthened by the fact that 89 companies, or more than 66% of those studied, closed at least 50% or more of the original provision to earned surplus or to income or transferred it to a general contingency reserve.

Although 20 companies that used the post-war reserve for contingent purposes only have been included in the above figures, for purposes of this study they should undoubtedly have been treated as if they failed to use the reserve. The survey also revealed that other concerns used the reserve for contingent purposes as well as for post-war reconversion. This procedure gives a second important fact brought out by the survey—the extent of the confusion between a special reserve and a contingency reserve. Special reserves are set up for specific purposes, such as post-war reconversion or deferred maintenance. Because of their nature they should be charged against periodic income. Contingency reserves are created to meet future unforeseeable costs or losses. They should be charged against earned surplus or appropriated out of current income. The confusion as to types of reserves already has been mentioned in connection with the purpose of the post-war reserve. Confusion was also present in connection with the

TABLE 3

EXTENT OF NON-USE OF POST-WAR RESERVES

Industry Field	No. of Companies with Reserves	No. of Companies with Unused Reserve Balances	Per Cent of Reserve Not Used				
			100	99–75	74–50	49–25	24–1
Apparel and Textile	2	2	1	1	0	0	0
Autos and Trucks	9	7	0	4	2	1	0
Auto Accessory	18	11	2	2	6	1	0
Aviation	10	10	2	2	5	1	0
Building Supplies	8	7	4	1	0	1	1
Chemical and Metal Products	16	16	5	5	3	1	2
Food Processors	7	6	4	1	0	0	1
Household Appliances	5	2	1	0	1	0	0
Machinery and Tools	32	27	8	4	9	2	4
Paper Products	4	4	4	0	0	0	0
Petroleum Products	10	9	3	1	1	2	2
Steel and Iron	12	12	2	1	4	3	2
Tire and Rubber	1	0	0	0	0	0	0
	134	113	36	22	31	12	12

Source: The annual reports of the 134 corporations.

disposition of the reserve. Fifty-eight companies used the reserve for some contingent purpose. This total includes the covering of the liability for renegotiation refunds to the United States and Canadian Governments, Federal income taxes for prior years, post-war strike costs and other incidental contingent costs.

The renegotiation refunds in connection with war contracts were the most important contingent use of the post-war reserve. Forty-six corporations, in at least one of the war years, charged the excess profits growing out of price adjustments to the reserve. Six of these concerns used a substantial part of the reserve for these settlements and they made no other use of the reserve. Sixteen other companies consistently debited refunds against the reserve in addition to their costs of reconversion. The remaining 24 companies occasionally used the reserve to cover a single refund, or to cover unprovided balances owed to the United States Government.

The necessity for price adjustments came through the War Profits Control Act, which required that all corporations having the prescribed type of war contracts would have to submit to renegotiation proceedings, and, if excess profits were determined, the corporations would have to make a refund to the United States Government. As this rule would mean that there would be a change in the amount received under the contract, the estimated change should have been debited to sales in the year in which revenue from the contract was recognized. It should not have been charged against the post-war reserve. Those companies that used the reserve to cover renegotiation refunds undoubtedly confused the purposes of the two reserves. The purpose of the post-war reserve was to provide a value against which could be charged post-war costs of plant reconversion. The reason for creating a renegotiation reserve was to set up an estimated liability to the United States Government in connection with war contract price settlement.

As 113 of the 134 corporations failed to use some part of the original provision of the post-war reserve, the question might

be raised as to why there was no greater employment of it for economic reconversion. On the basis of the data set forth in their published reports, it appears that the reasons might be summarized as follows:

1. The purpose for creating the reserve failed to develop.
2. The true purpose of the reserve was to cover renegotiation refunds rather than post-war adjustments.
3. Post-war expenditures, covering reconversion costs, were charged against current revenues rather than against the reserve.
4. A contingency reserve was actually set up, rather than a post-war reserve.
5. Errors were made in judgment of the amount required to cover the cost of reconversion. These bad estimates caused an overprovision of the reserve.

RESULTS OF NON-USE OF RESERVE

The primary result of the non-use of the post-war reserve is profit distortion. Charging the reserve provision against war revenues, provided no proper use was made of the reserve, resulted in an understatement of the income figure in those years in which the provision was made. If, as the annual reports of 29 of the corporations showed to be the case, the reserve was provided and the cost of reconversion was charged against current income, profits were understated both in the years in which the provision was made and in the years in which the costs were charged to revenue. In the case of 17 of the corporations, the unused balance of the reserve was credited to post-war income. This procedure, of course, resulted in an overstatement of the profit for those periods.

In the survey it was found that the published profit ratios for 22 companies would have increased from 3% to 119% if the reserve provision had not been deducted from war revenues. These 22 corporations were selected from those that failed to use the reserve which they had provided earlier. In those cases in which the reserve was used properly to cover reconversion costs, it was a legitimate charge against war revenues. Whenever it was not used, the appropriation from war revenues was highly questionable. There is no doubt that an understatement of profit ranging from 33% to 99% made by seven of the 22 corporations could have resulted in confusing the average investor, one not acquainted with accounting technicalities, as to the true financial condition of a given company.

CONCLUSIONS

In this study, interest was centered primarily in only one of several types of reserves. What 134 large manufacturing corporations did with the special reserve created to cover post-war reconversion costs has been shown. The various general conclusions growing out of the study, which might be used toward clearer thinking in respect to special reserves, are:

1. A distinction should be drawn between a special reserve created for a specific purpose and the general contingency reserve.[2] In the survey of the disposition of the special post-war reserve a remarkable degree of confusion over disposition was evident. The final use to which the reserve was devoted proves that many corporations in maintaining a Reserve for Post-War Adjustments had, instead, set up and used what was, in effect, a Reserve for Contingencies. A preciseness in thinking about the purpose of the reserve would obviate such confusion.
   A. The principal manner of avoiding confusion would be to recognize the fact that a special reserve aids in the proper assignment of costs to revenue: the cost of post-war economic reconversion then would be assigned properly to war revenues whenever there are foreseeable costs or losses in this transition period. Conservatism or the possibility of unpredictable post-war costs would be insufficient and illogical bases for setting up a post-war reconversion reserve. A quasi-liability should exist before the reserve is created. In other words, it should

[2] *Accounting Research Bulletin No. 28,* American Institute of Accounts. 1947.

first be certain that specific adjustment costs would be incurred.

B. In post-war adjustments, the debits to the reserve should be limited to the costs incurred in conversion from a wartime to a peacetime economy. Such adjustments would consist of the costs of rehabilitating and rearranging plant and facilities, payroll expenses in connection with post war labor adjustments, post-war write-offs of unamortized costs of unusable war facilities, maintenance deferred as a result of war production, and costs or losses incurred in the termination of war contracts. All of these costs, even though the expenditure or loss might be incurred in the post-war period, are properly chargeable to war revenues.

C. All contingent costs or losses, including the refund of excess profits on renegotiated war contracts, should be segregated and made applicable to other types of reserves. These charges are different from charges attributable to post-war reconversion costs. Confusion will be alleviated if specific reserves for these separate purposes are created.

D. The correct procedure should be observed in setting up each type of reserve. The post-war reserve, because of its basic purpose, should be a charge against periodic war revenue. It might be shown as an operating expense or as a deduction from operating income. The renegotiation reserve should be set up by a direct debit to sales. The result of the creation of a renegotiation reserve is the correction of war contract revenue. It should therefore be so considered in the accounts. A reserve for contingencies, if required, should be created by a debit to earned surplus or by means of an appropriation of current income. As a result of the failure of many to recognize the technical difference between an income deduction and an appropriation of income, much is to be said for charging provisions for contingencies against earned surplus.

2. The second important aspect of the post-war reserve brought out by this study was the overprovision of the reserve. This overprovision could be corrected by means of a study of the amounts estimated to be required to complete a post-war reconversion program. Scientific estimates of post-war reconversion were made by only a few of the corporations studied. Making an accurate estimate of post-war costs should be no more difficult than estimating depreciation on fixed assets. In fact, the two have several points in common, and one material difference. The post-war reserve is a charge against current income, the expenditure to be made in the future, but depreciation is based on a current or past expenditure, the expense being spread over future periods. Both the post-war reserve and the depreciation reserve, however, require an estimate of the number of years over which the charge is to be spread.

In recent years there has been some criticism of methods and motives used in the creation of reserves, especially those set up for contingencies. Accountants are beginning to suggest that, because earned surplus is itself available for contingencies, there is no reason for creating a contingency reserve. Thus, Paton states:[3]

> The practice of appropriating earnings in the form of one or more possible loss reserves should not be carried to extremes. Reservations which are nothing more than gestures in the direction of conservatism are more likely to obscure than to illuminate and are to be avoided. The accumulation of a general earnings buffer, without the use of fancy labels, is sufficient indication of conservative policy except in situations where a definite basis for anxiety exists.

This type of thinking applies to many of the reserves created during the war by the corporations studied. While there was no need for the unused reserves and those created as a matter of conservatism, the post-war reserves that were used properly would not be subject to the above criticism. The purpose of the post-war reserve is quite different from that of contingency reserves. The purpose of the post-war reserve is the proper assignment of costs to periodic revenue. If costs are assigned properly to periodic revenue, there will be less distortion of annual income. A reserve created for such a purpose and used properly, is undoubtedly a necessary accounting procedure.

[3] *Essentials of Accounting*, revised edition (New York: Macmillan Company, 1949), p. 746.

NON-COMMERCIAL CURRICULUM FOR ACCOUNTING MAJORS

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IN THE majority of schools which provide for an accounting major, the accounting student spends approximately one-fourth of his time on accounting courses, and another one-fourth on other courses in business administration.

This situation gives rise to two rather serious questions. First, is such a concentration of effort desirable? Second, assuming that the situation is desirable or is to continue without regard to its desirability, what is the best possible use that can be made of the other half of the students' time?

The question of the desirability of specialization depends to a large extent on what is meant by specialization. If this means that the student has concentrated his effort to such an extent that he has a thorough knowledge of, for example, the detailed requirements for an accounting system of a cotton manufacturer and not much else, then the answer would be an emphatic "No!" If, however, it means that the student has acquired a thorough understanding of the function of accounting as an integral part of business activities and of the effect that accounting can have on our society, then the answer would be an unequivocal "Yes!"

There are those who contend that the general, broad, education in which the student touches briefly on a great variety of subjects is best because it "gives him the broad view-point." On this subject Sir Richard Livingston, famous British educator, said, "If I had to choose between a broad education which skims over the surface of a variety of subjects without going thoroughly into at least one; and a narrow education which went deeply into something, I would choose the latter in spite of its defects, remembering the saying about a charming woman. 'The first time you spoke to her you thought she knew everything about everything; the second time, you thought she knew everything about everything except the subject on which she was speaking; the third time, that she knew nothing about anything!'"[1]

Our modern civilization requires specialization. There has been much criticism of specialization among the doctors, but the advancements that have been made with tuberculosis, cancer and heart disease, to mention a few, have been made because of specialization. The increased productivity of our labor, i.e., mass production in industry, has been brought about by specialists and because of specialization.

Allowing the student to delve deeply into one subject so that he knows what it means to really understand and explore that particular phase of knowledge should give that person both pride and humility. Pride that he at least has a mastery of one field of specialization and humility in knowing that there is so much which he doesn't know.

Then we come to the very practical consideration that the student who has specialized in some field or another is much more sought after by prospective employers than is the student who has made no attempt to specialize.

There has been much discussion of the

[1] John E. Burchard, editor, Midcentury, *The Social Implications of Scientific Progress.* New York: John Wiley and Sons, Inc., 1950, p. 304.

need for students who have had a broad, well-rounded general education, and many of our leading accountants have given lip-service to this concept. Nevertheless, when these accountants visit the college campuses for the purpose of hiring new men, they look for the best students who have specialized in accounting rather than the student who has not specialized.

Assuming that specialization is with us to stay, the next problem is to determine what the student should do with the time he has outside his field of specialization.

The answer to this question depends to a large extent on where you draw the line between work within the field and work outside the field. There has been a considerable tendency in recent years to introduce courses into the business curriculum from other fields and call these courses a part of the specialized curriculum. This tendency has been followed to a greater or lesser extent by all the colleges and universities, so that drawing a dividing line is extremely difficult. Another problem which makes it impractical to attempt to outline a list of courses or subjects, is that practically identical material taught at different universities would probably be given a different name. For these reasons, this paper will merely outline generally the author's ideas as to what the student of accounting should become familiar with during his years in college.

The accountant, both public and industrial, should have a sound technical knowledge of his work, but being a good technician is not enough. If good technicians were all that accounting required the colleges and universities would have no place in the education of accountants, because the business schools can and do turn out some excellent technicians. To become a good accountant and an intelligent citizen, the student needs much more than this. On this subject, the 1951 edition of the *Occupational Outlook Handbook* states: "Applicants with a college degree in business administration as well as in accounting have better chances of employment than those whose training has been limited to the accounting field. . . . " This is at least an indication that business men are recognizing the need for something more than technical training.

In discussing this problem of curriculum with practicing accountants, the complaint most often heard is that the student doesn't know how to express his ideas. The student should get a good foundation in oral and written English. He should take sufficient work in this field to be able to express himself clearly, concisely and correctly in written reports and conversation.

The efficiency of the industrial accountant is to a large extent measured by the reports that he presents to the management of the business. If these reports are not clearly and concisely written the work of the internal accountant is at least partially wasted. For public accountants, the restriction of his effectiveness to the written report is much more pronounced. In the final analysis, the auditor is judged by his finished product, the audit report. Too many auditors write their audit reports by taking the previous year's report and copying almost word for word, changing only the dates and figures. For a new client, these auditors use the report of a similar company and change the name of the company, the dates and figures. In doing this, the accountant loses an excellent opportunity to be of service to his client, since very few clients will read the same report year after year. Even if the client does read the report, the opportunity for valuable guidance and advice is lost because such material cannot be included in a stereotype report. Therefore, if the accountant is unable to put across his ideas in a clear, readable report, his knowledge is wasted.

This ability to write an intelligent and readable report should be developed in courses dealing with written English. The mechanics of grammar are important, but knowing the mechanics of verb conjugation will not in itself transform the average student into a report writer. The student needs some definite training dealing with the writing of business reports and business letters.

A study of some of the great writers of current and past generations should be of value to the student in becoming familiar with written English and, in addition, will give him a sample of the pleasure of reading good literature. The time and work required to become proficient in report writing will vary between individual students, therefore the criterion should be the accomplishment of the named objective rather than a list of courses which should be taken.

As tool or background courses needed for a thorough understanding of the mechanics of accounting, mathematics rank close to the top. In this connection the student should learn the basic numerical relationships in algebra, geometry, etc., and should become familiar with the special problems of the mathematics of finance and statistical analysis. Someone has defined accounting as simply a branch of statistics. Although this definition doesn't entirely coincide with the accountant's feeling on the subject, it does point out the fact that the accountant needs a knowledge of statistical methods of analysis as an aid in this work.

A field of endeavor in which the accounting student should spend considerable time is the study of economics. This is probably the most important phase of the accountant's education outside the accounting field. Whether the training here is called economics or business administration is of no real consequence, the end result should be that the student obtain some understanding of the principles of economics as well as a familiarity with the basic economic problems of our time. Another course which should be included in the curriculum is public finance. This is often omitted in planning the students' work in economics, but if included, will be of invaluable aid in understanding the economic, as well as the social and political problems of our time. The accountant is constantly being called upon to render decisions and advice which have a far-reaching effect on our social and economic system. If he can acquire the skill in analysis which permits him to judge his special accounting problems in the light of the economic function which accounting is supposed to fulfill, he will be a much more useful accountant, both to his clients and to society.

Next, the student should become aware of the major social and political problems of the world today. This, within itself, is a rather large order. It requires well-rounded introductory courses in political science, sociology and the various other phases of human relations.

An introductory course in science, if properly taught, would be very useful to the prospective accountant. The method of teaching this course should be somewhat different from the methods currently used in most schools. The idea should be to introduce the student to the industrial use of science so that he will not be entirely ignorant of the accounting problems that are encountered in this phase of our industry. An introduction to science with this approach would be much more valuable than a laboratory course in any one of the fields of science.

Somewhere in the students' education, in his home training as well as in formal education, should come a sound moral code of ethics. This will not come from any particular course that the student takes, but will come from the general atmosphere on

the college campus and the attitude and approach of the various instructors. The instructors and college officials should assume a definite responsibility in this respect. This doesn't necessarily refer to "professional ethics" as the term is generally used, but to a basic knowledge of good and evil. This is especially true in times of stress, such as we are living in today, in which the dividing line between good and evil has become so blurred and hazy—where the newspapers and news reports are filled with stories concerning men in prominent positions, to whom the consideration is not "is it right or wrong?" but rather "can I get away with it?"

Several of the fields of study which the student is currently required to take in most universities have been omitted from this proposed program for the accounting student. This, however, is necessary if the accountant is to be trained to fulfill his duty to his client and to society. It is admitted that, in view of the limited number of courses that can be taken in a four year curriculum, the student must choose between courses necessary to his professional training and other courses which might be highly desirable. In such a choice, the decision must go to the program necessary to maintain and improve the standard of the accounting profession.

REVALUATION AND DEPRECIATION OF PLANT ASSETS

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FOR A GOOD MANY YEARS NOW, perhaps it might be safe to say several decades, most accounting authorities have been against the revaluation of plant assets. Cost or its equivalent has been the time honored basis for the valuation of fixed assets on the balance sheet. On the other hand, there is no denying that there have been and are outstanding men in the profession who recognize the need for some sort of revaluation under certain conditions. Yet it is my impression that very few will ever give their unequivocal endorsement to any basis but cost. What is the reason for this apparent hedging? I believe it is due to the fact that no satisfactory substitute has yet been found to replace the cost theory. It is the purpose of this article to explore some of the factors which tie us to the historic basis of cost, and which inhibit all but the very bold from advocating current values along with a concrete plan for carrying their theory into effect. I must also add that in all references to plant assets, I have deliberately ignored land or its related natural resources. Revaluations of these assets are necessary in order to give a true picture of the enterprise. For this reason the above assets usually require separate treatment from the so called man-made possessions.

It might be best to begin by going back to the balance sheet itself in an effort to determine just what is contained on this statement; particularly on the asset side. According to Paton,[1] "The balance sheet is not a statement of realizable values or immediate liquid position. It includes a mass of cost commitments for the technical factors of production." It might be well to add here, that in our review of the balance sheet, we are interested only in the going concern, and not in one that is about to be liquidated. One may then ask, what values do we normally attempt to show on this statement? Daniels[2] points out that the "Balance sheet is fundamentally a poor instrument for indicating the value of an enterprise." It is an instrument that better serves as a comparison between one period and another. He further adds that one balance sheet alone means very little with respect to value. It is mainly by comparing the increases in net worth from one period to another that we can determine the progress made by a particular enterprise. If one is to think of a balance sheet as not intending to show realizable values, then there may be no need for concern if the fixed assets are recorded at historic cost.

On the other hand, in dealing with current assets, it is essential to show current values. Short term creditors look to this section in order to determine the equity behind their open accounts. The working capital position of a concern is analyzed by matching the current value of its obligations against the current value of its liquid assets. Cash and receivables automatically indicate realizable values, and require only a small periodic adjustment for bad debts. Inventories are often adjusted conservatively to show cost or market. Paton[3] feels

[1] W. A. Paton, "Aspects of Asset Valuations," ACCOUNTING REVIEW, June 1934, p. 124.

[2] M. B. Daniels, "Principles of Asset Valuation," ACCOUNTING REVIEW, June 1934, p. 117.

[3] W. A. Paton, "Aspects of Asset Valuation," ACCOUNTING REVIEW, June 1934, p. 124.

that inventories do not represent liquid funds such as cash or receivables, and an attempt to show them as liquid by using cost or market or related devices is not necessary. It is not my intention at this time to go into the various ramifications of inventory valuation. However, I do wish to point out the fact that the valuation of our cash and receivables is of an entirely different nature than that of plant assets.

Plant and equipment represent permanent investments. In the normal course of a business enterprise, no attempt will be made to dispose of this equipment while they still have some value to the business. The valuation of these assets on the balance sheet represents unrecovered costs, and it is these costs that are apportioned to revenue during the useful life of the plant or machinery. We seem to have therefore, two sets of values on the asset side of the balance sheet. Realizable value incorporated in our current assets and "cost for use" incorporated in our capital assets.

"Cost for use" when referring to plant and equipment perhaps requires further elaboration. A plant is purchased, not for resale but for use in the operations of the business. Since a building or machine is in the nature of a durable commodity, it can be expected to serve the enterprise for many years to come. The entire cost of this equipment need not be charged to the income of the period in which it was acquired. This type of asset may therefore be construed as a prepaid expense. Mason[4] adequately describes this by saying that "The asset account may well be thought of as a deferred charge to operations or prepaid expense, similar to prepaid rent or insurance . . . charged to the operations of the period in which the service is rendered." Or, "Fixed assets are really in the nature of a deferred charge against the future income they will help to produce."[5]

A pencil is seldom thought of as belonging in the realm of plant equipment. Yet if we were to break down our accounting period into days instead of years, that is exactly what a pencil would be; part of the fixed assets. Since it would now be considered as a durable item rather than a consumable one, one would hesitate to write off its cost on the day it was purchased. It would probably be charged off in accordance with the use it was rendering the company. The remaining cost, not yet written off, would be treated as a prepaid expense awaiting its proportionate charge to future operations. This charge or depreciation would probably be based on the cost of the pencil and not some arbitrary figure.

If we consider either the pencil, or some large factory site costing several million dollars, as a deferred charge, it seems reasonable to write off this prepaid expense on the basis of its cost. Perhaps we have the crux of the matter right here. Accountants in general find it inherently unreasonable to reduce a deferred charge on any other basis but cost. Certainly no one would recommend altering the cost of an insurance premium as it was being written off. Nonetheless, the depreciation charges of a plant are similar in nature to the write-offs of an insurance premium. Paton[6] believes that the essential thing obtained when plant and equipment are erected is not the building itself but the services it can render. Depreciation is but the attempt to charge the cost of such services to production. If it is borne in mind that the charge for depreciation is service for use, one might hesitate to base this charge on anything but cost.

[4] Perry Mason, *Principles of Public Utility Depreciation*, American Accounting Association, 1937, p. 13.

[5] Sanders, Hatfield and Moore, *A Statement of Accounting Principles*, American Institute of Accountants, 1938, p. 59.

[6] W. A. Paton, "Aspects of Asset Valuations: Accounting Review, June 1934, p. 124.

Very often there is a tendency to confuse depreciation with the financing of replacements. Depreciation is not a replacement fund. If it were, there would possibly be just cause for basing depreciation on the anticipated cost of replacing the asset. Paton[7] calls depreciation "The writing off of the prepayment of a plant asset." Gilman[8] indicates that "There is no accounting relation between the amortization of an existing asset and its ultimate replacement." He adds that "Considerable confusion exists between correct accounting procedure on the one hand and the financial policy of setting up a replacement fund." I believe that much of the criticism directed against accountants for their policy of adhering to historic costs is due in a large measure to this fallacy of thinking of periodic depreciation as a means of setting up a replacement fund.

It was mentioned earlier in this article that there is a great hesitancy on the part of the profession to officially depart from the cost basis in accounting for fixed assets. Tracing back to the early history of accounting, we find that according to Littleton,[9] only original cost was used since accountants were in reality bookkeepers concerned only with recording the history of a particular venture. One need not go back very far, however, to find many examples of accounting doctrine advocating a cost basis.

The Executive Committee of the American Accounting Association in a "Tentative Statement of Accounting Principles Affecting Corporate Reports,"[10] had this to say:

> " . . . There seems to be no sound reason for repeated adjustment of asset values for the ordinary changes in price levels commonly experienced from one generation to another.
>
> " . . . Occasional uncoordinated appraisals produce a hodge podge of unrelated values."

Paton[11] professes that accountants generally are against appraisals, due in part to the flagrant over-valuations of the assets. He believes that actual cost less depreciation is generally a better indication of value in use to the going concern than market value. However, as will be pointed out later, he is of the opinion that at times, sound appraisals accompanied by full disclosure need not necessarily violate good accounting principles.

Kester,[12] a strong advocate of the cost basis indicates that:

> " . . . It is expected that fixed assets are never for resale and that they will continue in use to the business until used up. Neither sale value nor replacement cost value of such assets has therefore, any influence on their value to the business. That value is the full cost adjusted periodically by an equitable distribution of that cost."

Hill[13] supports depreciation based on cost by pointing out that it:

> " . . . takes the place of some labor cost which would have to be incurred in the absence of some plant unit."

Canning[14] asserts:

> " . . . that the appraisal formula may be a good working rule in damage suits, but is absurd as a sole rule of going concern valuation."

Kohler, in the article, "Restoration of Fixed Asset Values"[15] claims:

> " . . . that the adoption of the cost principle (an essential feature of which is the allocation of costs to accounting periods) should eliminate the heterogeneous results of accounting practices which have permitted periodic revaluation of assets, up or down in accordance with current

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[7] W. A. Paton, *Advanced Accounting*, p. 247–8.
[8] S. Gilman, *Accounting Concepts of Profit*, p. 493.
[9] A. C. Littleton, "Value or Cost," Accounting Review, Sept. 1935, p. 269.
[10] Accounting Review 1936, p. 189.
[11] W. A. Paton, *Advanced Accounting*, p. 338.
[12] R. B. Kester, *Accounting Theory and Practice*, p. 542.
[13] H. Hill, *Practical Aspects of Depreciation and Obsolescence*, American Management Association, 1938, p. 27.
[14] J. B. Canning, *The Economics of Accounting*, p. 255.
[15] Accounting Review 1947, April, p. 200.

price levels and temporary business developments."

Greer in the same article mentions that since we went through an "epidemic" of write-ups during the 20's, "Some of us hoped that the business community had become immune to further attacks of this disease." He adds that when fixed assets have been charged against profits systematically over a period of years, a basic method of valuation has been set up and there should be no revaluations on the same asset. Blough[16] believes that appraisal write-ups, as a general practice, are in disrepute. According to Hoxsey[17] "Revaluation . . . being based upon judgement at a particular time can only be accurate, if at all, for that instant of time."

Adherence to the cost basis of accounting for plant assets seems to have many advocates. The reasons do not appear to stem from a bookkeeper's desire to record only historical facts. Experience with revaluations (and there is no lack of precedent) indicates an array of mis-valuations. Unfortunately, no one is able to predict a price level or economic cycle for any length of time. A write-up in one period usually requires a correction in a subsequent one, and before very long, the original cost of the asset is lost in a maze of appraisals. If depreciation is to be a periodic charge against revenue for the service of a plant, it would appear more equitable to base it upon the original prepaid expense. Otherwise, after a few revaluations and corrections thereto, depreciation charges become meaningless as an attempt to match a portion of the deferred charge to the income of a period.

It was stated earlier that one of the important functions of the balance sheet was to serve as a basis of comparison with previous periods. The same can be said to be true with respect to the income statement. If depreciation charges (which are an important aspect of profits particularly with manufacturing concerns) are computed on different bases according to the latest appraisals, how can we make an intelligent comparison of profits from one year to the next? Littleton[18] asks, "Does writing up fixed assets actually increase the cost of using the asset, and does writing them down actually decrease the burden of owning the assets that were bought at high price levels?" Yet the history of appraisals is often an attempt to reduce the burden of equipment bought at inflationary prices. It would seem that if a corporation paid $100,000 for a machine, writing it down to $75,000 would not actually reduce the cost of that machine. True, the replacement of a similar piece of equipment might only cost $75,000. However, the problem here is to equitably distribute, over the ensuing periods, the prepaid expense of $100,000 and not the hypothetical cost of $75,000. One might add that the particular machine may never be replaced due to the normal progress of the industry.

Despite the array of accountants opposed to revaluation, everyone is aware of the past history of asset write-ups and write-downs, and of its prevalence in today's financial statements. Littleton[19] fixes trend of opinion against a cost basis beginning in 1924, due to the following factors: Economists predicted a permanently higher level of prices; consequently felt that plant assets should reflect this higher level on the balance sheet. Investment bankers believed that assets were to be judged by their earning power and not by their costs. They were of course interested in advancing their client's common stock

[16] C. G. Blough, *Ibid.*, p. 197.

[17] *Accountant's Handbook*, 3d. ed., p. 821.

[18] A. C. Littleton, "High Standards of Accounting," *Journal of Accounting*, Aug. 1938, p. 101.

[19] A. C. Littleton, "Value or Cost," ACCOUNTING REVIEW, Sept. 1935, pp., 271–272.

on the national exchanges, and a greater dollar volume of assets would improve this situation. Utility commissions used replacement costs in setting rates. Obviously there was a great deal of pressure to appreciate the value of a utility's fixed assets. The courts in most states encouraged this trend by permitting directors to value the assets of their corporation as they saw fit. There was no legal prohibition against a reasonable appraisal of assets as long as there was no deliberate fraud.

The latter half of the 20's then, witnessed a great mass of appreciation of corporate plant assets. The depression of the early 30's caused a reversal in this trend and unsettled original costs still further. Much of the agitation for the write-downs of the 30's was due to an attempt to show better looking income sheets. Management was anxious to improve dividend payments; thereby increasing stock market prices. Asset write-downs enabled management to reduce depreciation charges which in turn resulted in higher book profits. This may have been an excellent way in which to comfort stockholders but can hardly be condoned as correct accounting procedure. Paton[20] indicates that many of the write-offs of the 30's were carried out in a very arbitrary fashion. The usual procedure was to reduce stated capital, thus creating a surplus. Furthermore, the notice of these changes was seldom explained fully to the stockholders. I should like to paraphrase Littleton[21] who very aptly summarizes the history of revaluations during the first half of this century. Opinion in 1900 first favored valuation for conservatism. During the 20's, opinion swung to revaluation to correct the conservatism, and during the 30's, revaluation to correct this correction. The purpose for the corrections of the 40's can best be left to the reader's imagination.

It has already been brought out that public opinion has been one force causing practicing accountants to condone revaluations. What other forces are at work to cause the profession to accept appraisals of plant assets? Or if the profession does not accept it officially, why the great mass of literature on the subject? Serious consideration of the problem prefaces an attempt to bring plant assets in line with current values, and at the same time adhere to accepted accounting principles.

The Special Committee on Cooperation with Stock Exchanges of the American Institute of Accountants in a letter to the New York Stock Exchange, dated Sept. 22, 1932 did not include any prohibition against revaluation of fixed assets in their list of generally accepted accounting principles. Their approach in this case was obviously a negative one.

In 1945, the Committee on Accounting Procedure in a letter addressed to the American Institute said:

> "Cost is normally the appropriate basis for recording fixed assets and depreciating therefrom. However, there are situations under which the recorded monetary values of corporate assets are no longer significant measurements of the accountability of the corporation for these assets."

The second letter seems to indicate a recognition on the part of the committee that revaluations cannot be entirely ignored, and that a more positive approach must be adopted. This recognition is not new on the part of individual men in the profession. Back in 1913, Dickenson[22] said "... it must be recognized that there are causes at work which may render a statement rendered on the basis of cost, misleading to present owners." Montgomery[23]

[20] W. A. Paton, *Advanced Accounting*, p. 334.

[21] A. C. Littleton, "Value or Cost," ACCOUNTING REVIEW, Sept. 1935, p. 272.

[22] Dickenson, *Accounting Practice and Procedure*, p. 80.

[23] R. H. Montgomery, *Auditing Theory and Practice*, p. 173.

writing in 1922 declared: "When appraisals are made in which appreciation is included, there is no objection to setting up appraised values provided the excess is credited to capital surplus." Grady[24] writing more recently, believes that the accounting profession has a strong leaning toward costs but that changes in current values have caused many of them to leave the door open for revaluation when costs are no longer significant. It is somewhat difficult to argue with this contention. An accountant's financial statement may be read by managers, bankers, stockholders, prospective investors and the interested public. It would seem that it is the duty of the accountant to clearly present the facts to this varied audience. This may be no easy task, but if certain items on the financial statement are at great variance with current values, then some method must be found to portray a meaningful picture. The use of footnotes and supplementary data on the balance sheet is of course the usual procedure for indicating discrepancies on the financial statements. However, as will be pointed out later, the cumulative use of supplemental data year after year can so complicate the information as to make it meaningless.

When indicating that current values may sometimes be more significant than costs, a distinction should be made between current value and replacement cost. These latter values may be used at certain times in the history of an enterprise. During negotiations for the purchase or sale of a business, or at the time of contemplated merger, valuation on the basis of replacement costs may be essential since book value is not acceptable as evidence of market value. Also in the case of utility commissions about to approve a rate change, replacement costs are necessary since the law sets this type of valuation for the purposes of rate making. At other than the above mentioned instances, there is seldom a valid reason for using replacement costs even though historical costs may be completely archaic. Dohr[25] points out that replacement costs are too speculative as to prices to be paid and as to whether replacement will be made in kind. There is always the possibility that when the present equipment is worn out, an entirely new type of machine or plant will be required. Paton[26] advocates some method of converting recorded dollars into current dollars but not replacement dollars since we have no way of knowing what that will be. The use of replacement costs seems to be tied in with the erroneous theory of using depreciation charges for the purpose of creating a replacement fund. Since depreciation is a charge for service in use, any necessary revaluation should at least be based upon an attempt to express current dollar values rather than estimated replacement values.

H. R. Sweeny has perhaps gone further than any one in an attempt to harness the fluctuating dollar to intrinsic values on the balance sheet. Up to the present time, no serious attempt has been made to incorporate Sweeny's ideas in the average financial statement. It is conceivable that in years to come, his ideas, or certain ramifications of them will be utilized as a solution to the problem. Meanwhile certain cautious departures from a historical cost basis are being recommended. Paton[27] in a very frank statement recognizes the shortcomings of conventional accounting principles that do not take into consideration the changing value of the dollar. Although no perfect solution is yet at hand, he believes that the problem should be seriously considered instead of hiding behind conven-

[24] P. Grady, "Accounting for Fixed Assets and their Amortization," ACCOUNTING REVIEW, Jan. 1950, p. 6.

[25] J. L. Dohr, "Depreciation and the Price Level," ACCOUNTING REVIEW, April, 1948, p. 118.

[26] W. A. Paton, *Ibid.*, p. 121.

[27] W. A. Paton, "Depreciation and the Price Level," ACCOUNTING REVIEW, April, 1948, p. 119.

tions and throwing up your hands. As one suggestion, he recommends the use of supplementary data on the balance sheet as a means of showing current dollars in comparison with the historical cost dollars included in the main statement. If the disparity between the cost figures and current values are wide enough, he recommends a complete quasi-reorganization. He cautions the accountant to assure himself that a thorough and fair appraisal be made by competent engineers, and that a formal capitalization be made of the credit representing the increase in plant assets, as recommended in the Accounting Research Bulletin No. 5 issued by the Committee on Accounting Procedure of the American Institute of Accountants.

Dohr[28] also recognizes the need for considering the changing value of the dollar and suggests the possibility of using supplementary data on the balance sheet. He admits, however, that this would only be useful in the early stages of inflation. After inflation has progressed considerably, he is afraid that the supplements would contradict the balance sheet. Dohr also suggests a quasi-reorganization but admits that this could not be accomplished too often. In other words, quasi-reorganizations or supplementary data in a period of ever increasing inflation would not solve the problem. The ultimate question as Dohr points out, is how much inflation is a prerequisite to action. He submits that we are rapidly moving into an area which demands a modification of generally accepted accounting principles to permit departures from the conventional cost basis.

Davidson[29] advocates depreciation based upon current costs in order to show correct profits. He recognizes the difficulty of determining current costs, however, and suggests a pro-forma income statement in addition to the regular one in order to indicate what the profit would be on the basis of current values. At the same time, Davidson adds that the reader must be warned of the difficulty of accurate measurement. He believes that when a change of this sort is made, the entire business community should make it in order that we would not destroy the comparability of profit figures. "Considering the technical accounting problems involved, the difficulties of forecasting a price level that is likely to persist, and the legal and institutional objections to be overcome, the present moment does not appear to be a propitious one for such a change." Here again we have a cautious suggestion for a departure from historic cost principles, but the realization that we have found no adequate means to measure cost dollars with current ones.

Perhaps that is why the Executive Committee of the American Accounting Association[30] as recently as 1948 still maintains that:

> "There should be no departure from the cost basis to reflect the assets of an enterprise. Price changes in recent years do not justify a departure from cost . . . . The most commonly useful financial statements report the origin and disposition of the assets of an enterprise in terms of costs established and recorded at the time the assets are acquired."

Instead of rushing to revalue plant assets with every change in the price level, it might not be amiss to glance for a moment at the balance sheet of a hypothetical concern that has adhered to the cost basis. Let us suppose that this company had begun operations at the turn of the century. The plant and equipment erected in those years were undoubtedly paid for in expensive dollars. Follow this

[28] J. L. Dohr, "Depreciation and the Price Level," ACCOUNTING REVIEW, April 1948, p. 118.

[29] S. Davidson, "Depreciation and Profit Determination," ACCOUNTING REVIEW, Jan. 1950, pp. 56–7.

[30] "Accounting Concepts and Standards Underlying Corporate Financial Statements." ACCOUNTING REVIEW, Oct. 1948, p. 340.

corporation through World War I and we would find new plant assets acquired with cheaper dollars. During the early 20's any machinery purchased required relatively fewer dollars, and in the late 20's a reversal of the trend. Continuing through the 30's the low prevailing price levels would permit this enterprise to gather additional plant and equipment at cheaper prices. It is obvious that the 40's again reversed the cycle.

Here we have a concern that has lived and progressed through the first fifty years of the twentieth century. During this period it has continuously purchased or erected new plant assets, some that were additions and others that were replacements. Without departing from the cost basis, is it not reasonable to assume that the fixed asset section of this company's balance sheet would reflect an average dollar somewhat commensurate with current prices? It would perhaps not be possible to put this average dollar to a statistical test, yet it might be found to be as accurate as the dollar that had been arbitrarily revalued several times during the past fifty years, and furthermore the financial statement would display the history of the costs established at the time the assets were acquired.

The reader may point that we have never returned to the price levels prevailing at the turn of the century, therefore the dollars of the earlier period would lower our average. To this I might add that it is unlikely that many plant assets purchased in 1905, for example, would still be on the books. It is possible that some of this equipment is in use, but its value written off long since. The typical business enterprise is always acquiring new equipment; some of it at high prices, some of it inexpensively. No individual piece of equipment will show current values unless it was just purchased. However, considering the fixed asset section in total, if left alone its value may be much more accurate than after constant appraisal and re-appraisals.

Solving the problem of the rubber dollar is beyond the scope of accountants. Our present society delegates that task to the government. While that dollar does not fluctuate too far in either direction, I would prefer to see original costs on a balance sheet. Despite the low value of today's dollar, we have not progressed far enough down the road of inflation to make financial statements meaningless. The *average* cost of plant assets purchased over a period of years will still be more significant than their arbitrary revaluations every so often. No one can predict the status of our troublesome medium of exchange over the next decade. Barring an international conflict or further tamperings on the part of the government, it might begin to stretch again. If it does, it would require corrections for the write-ups now in progress. There is time to consider drastic revaluations when and if the dollar plunges into hopeless expansion. To date this has not occurred, and it would seem preferable to stop juggling plant assets.

A PLEA FOR A BALANCED TRAINING PROGRAM FOR ACCOUNTING STUDENTS

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The teaching and training of students who are planning to enter the public accounting profession has been the target for many articles and has been the subject for much discussion by both accountants and educators. The American Accounting Association and the American Institute of Accountants have contributed greatly to the exchange of ideas on this topic through their conventions and in their publications. So great is the interest, in this still unsettled question, that large sums of money have been spent in developing aptitude and achievement tests for colleges and universities and for the promotion of research in the interest of improving the training of prospective public accountants.

In connection with the articles, papers and discussions, on the training program for public accounting majors, there is divided opinion regarding the emphasis to be placed on different courses of study. In some of the discussion certain ideas have been reiterated to the point of subjugation of new thinking on this topic. Examples of this trend are: (1) the criterion of a school's training program is the number of successful C.P.A. candidates among their graduates, (2) educators should put more and more stress on teaching the philosophy of accounting as opposed to the skills of accounting, and (3) any emphasis on accounting practice automatically makes a trade school of the accounting department. The above tendencies are here neither condemned nor condoned in their entirety. Rather an appeal is entered for a balanced program in accounting training—a program in which there is balance between general education and technical training and a balance between theory and practical accounting.

The C.P.A. examination is probably foremost in the minds of many accounting students, but to direct the accounting curriculum in this one direction without adequate consideration for other aspects of his training is to promote the biggest trade school of all. A certificate in itself may help obtain a job, but it neither brings in new clients nor holds old ones. It is a useful yardstick, not the end goal of a program for a college education. Harry Zug, member of the Committee on Education of the Pennsylvania Institute of C.P.A.'s, recently gave these four objectives of accountancy education. First in importance is education in general knowledge; secondly, education for the accountant should produce in him a sense of social responsibility; third, a knowledge of accounting theory and principles of auditing; and as a final objective, education must aim to train the student in fluency of thought. I submit that the C.P.A. examination should have its place when planning the accounting curriculum, but use it as a touchstone and not as a guiding star.

Equilibrium between accounting theory and accounting practice should also be a major consideration in planning the program for the trainee. It is here that is found the conflict between those who would teach only the science of accounting and those who would make the accounting

teacher a drill master of figures. For fear of being among the latter there seems to be a rush to be among the former.

A practitioner friend recently told this story of a promising young accounting graduate of a leading university. This graduate was given a small set of books and asked to draw off a trial balance. After a short time the practitioner returned to find the graduate hard at work on the journals and with the ledger untouched. This of course is an isolated and unusual case, I hope, but I wonder if it could have happened if proper balance had been obtained in the accounting program of that university.

The demands of the various public accounting firms as to the requirements of their new employees varies widely. It is probably true that the large national type of firm will look for Junior Accountants who will perform audit work under the direct supervision of qualified seniors for many months before taking on authority and responsibility. On the other hand the local firms who handle many smaller and medium sized clients and who have fewer staff men are perhaps looking for Juniors who from the start can be relied upon to some extent to deal directly with the clients. If the chairman of an accounting department can combine the practical aspects of accounting with the teaching of theory then he can satisfy the demands of both of these types of firms.

Some of the practical aspects which many accounting graduates seem to lack are: speed in completing work assignments, ignorance in simple tax matters, failure to look at business problems realistically, and inability to discuss clearly and accurately on technical subjects. A balanced training program can give the student the proper background to overcome these deficiencies.

The right combination of instruction should impart not only sufficient theory but sufficient practice so that the student develops self confidence and speed in his work. Speed not only plays an important part in taking the C.P.A. examination but also in completing an audit job. In working classroom problems and laboratory assignments the element of time should receive fair consideration. If in solving a client's problem there is more expense for the accountant's time than there is a saving realized because of his work, then the client hasn't gained anything.

Realism should be incorporated in all accounting courses. Too many outdated classroom type of problems and questions are in use. Professional accountants are daily faced with problems which must be solved quickly and economically to the advantage of the client. These day to day problems should be used as much as possible in the classroom. In order to do this the instructors will have to maintain a close relationship with practice and practitioners. It is not easy to obtain access to accountant's workpapers and audit programs. The wise selection of public accountants as part time instructors should be a partial answer to this question. The employment of professors with practical experience in their specific field should certainly help to bring realism into the classroom. The internship programs now in use by many universities also help in giving the student practical work. Another slightly different version of combining school work with practical experience is the cooperative plan where two students alternate in going to school and in holding a job.

Field trips to industrial plants and to representative types of businesses help to make the training program more realistic. In order to gain the most out of field trips they must be carefully planned and coordinated with the course work. An instructor who is familiar with the progress of the students should conduct each tour

only after having become well informed on all phases of the business under survey. The students should be well briefed beforehand and there should be a critique and a written test after the trip.

In connection with the lack of tax knowledge noticeable in many graduates, better coordination of the accounting courses with the tax courses should make students more tax conscious. Differences in the accounting treatment and the tax treatment of various problems should be pointed out. There should be laboratory work assignments to supplement the classroom work. In the courses in income taxes some time should be spent on the local state income taxes. If possible students should have the opportunity of working problems involving Federal, State and franchise taxes.

It is a waste of time for anyone to argue that logical expression and good grammar aren't major prerequisites for students of public accounting. The ability to speak and write clearly are desirable characteristics for all public accountants. The developing of these traits should most certainly be a major consideration in the planning of the training program. Northwestern University, among several, has added a specialized course in accountant's writing. This is an excellent solution except that not all schools can squeeze another course into an already over-crowded schedule. Accounting teachers can give their students practice in logical expression by using problems and questions which require discussion type answers. The true and false questions are easy to grade, but they don't give the student experience in English composition. If in practice a person is called upon to write reports and explain technical problems then his classroom training should be along these lines.

Salesmanship plays a larger role in the practice of a successful public accountant than many people realize. The ability to get along well with people and to sell yourself and your services is very important, especially for local practitioners. The textbooks in auditing give the student little preparation along these lines, and so it is left to the auditing instructor to emphasize the significance of good public relations. Accounting clubs and organizations help undergraduates become more socially minded and more mature along these lines. Some universities hold clinics with such themes as, "How to Apply for a Job," just to fill this deficiency in a student's training. These outside activities are all a part of the well balanced accounting program.

The achieving of this so-called balance in the accounting program is not an easy task but it is an interesting one. A carefully planned curriculum is only the beginning. The teachers must be carefully selected and must work as a team. Each must be sympathetic to the overall program. All phases of the students' program should constantly be reviewed to keep each element in correct focus. The accounting courses should not crowd out important liberal arts and general business courses. Accounting theory should not over-shadow accounting practice.

Many educators are now advocating graduate training and five year courses for public accounting majors. Perhaps this is the answer to the problem of turning out finished accounting students. Perhaps we are expecting too much of our four year college graduates. Is it possible to improve the quality of these accounting majors? Can better results be obtained than we are getting now? This then is the challenge that faces accounting teachers today.

ACCOUNTING IN THE LIBERAL ARTS COLLEGE*

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HAS THE LIBERAL ARTS COLLEGE discharged its rightful obligations in the field of accounting education? The question, once posed, defies easy answer because of the widely differing locations, sizes and aims of liberal arts units, such as the large metropolitan colleges, State-supported schools, privately-endowed colleges, two-year schools, teacher training units, and schools with a technical emphasis.

The approach to courses for all fields of accounting—public, private, cost, tax and Governmental—represents something of a paradox today. Viewed by some as too practical for admission to the cultural-centered liberal arts curriculum, by others as a field of graduate study, these courses on many campuses have been sustained largely by the intellectual prowess of faculties and the ever-increasing demand of students for practical training in areas of employment arising from the war and post-war economies. Even the most cursory glance at recent college catalogues reveals that accounting courses appear under a variety of departments, most frequently under business administration or social science, but sometimes correlated with instruction in mathematics, statistics or secretarial studies, and less frequently as part of the pre-engineering or pre-law curriculum. This state of affairs is symptomatic of the fact that accounting education has mushroomed so rapidly in our time that its place in the curriculum has not been adequately defined. However, it is not conducive to the conception of a uniform educational pattern for American accountancy and to an understanding by each instructor of his specific role in that pattern.

Generally speaking, little attempt appears to have been made either by the administrators or professors of liberal arts colleges to outline curricula which may be considered as meeting contemporary requirements in the fields of independent auditing, managerial or cost accounting, Government service or tax practice. This may be because these individuals have lacked the benefit of recognized standards, evolved over the years by professional groups, for accounting education on the collegiate level. An evaluation of accounting curricula and procedures on the highways and byways of higher education is clearly called for at this time, preferably to be undertaken jointly by the American Accounting Association and the American Institute of Accountants, and with the assistance of outstanding educators in the allied fields of economics, finance and law. From such a survey should come the proposal, if not the prescription, of a well-balanced course of study in accountancy as well as some observations on the qualifications of teachers and the proper classroom methods to be pursued. Undoubtedly, an herculean effort would have to be exerted to coordinate accounting education as it exists in all of its ramifications, but the value of the task would be evident in the quality of the college product available for employment, upon graduation, by private industry or public accountancy.

From time to time in the past, the Amer-

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ican Accounting Association and the American Institute of Accountants have considered the subject of college education. In 1949, for instance, the former advocated a four-year course consisting of 60 semester hours of liberal arts courses, 30 hours of business subjects, and 30 hours of accounting studies, but this could hardly be fitted into the average liberal arts curriculum, already heavily loaded with required courses of a cultural nature. On the other hand, the Institute's program of 90 hours of liberal arts and science, and 30 hours of business subjects and basic accounting studies, with advanced theory, cost accounting, income tax and auditing placed in the graduate school, offers little solution to the dilemma of coordinating cultural and semi-professional courses in the undergraduate liberal arts curriculum. At the London School of Economics, where accounting courses have been offered since 1919, the increasing importance of the practitioner in public affairs is stressed in a curriculum which correlates technical training with courses in economics, political science and English law.

Why are there so few outstanding teachers of accounting? Largely because too many instructors, with only one or two accounting courses to their credit as undergraduates, were pressed into service during the war emergency to man vastly expanded classes. Feeling that their duties were of short duration, many of these teachers have not seen the need, in spite of continuing in the field, of retraining themselves for teaching accountancy or of acquainting themselves with the specialized literature, time-honored traditions and ethical standards cherished by the profession. In some small liberal arts colleges one or more accounting courses have frequently been assigned to economists, anthropologists, secretarial teachers and other faculty members who desired to fill out a teaching program in a department faced with declining student enrollment. This may seem a far-flung illustration to faculties of a large college with a strong accounting department, but the condition noted exists on many campuses and little is done to remedy it.

It is suggested that the small college, if it cannot invite a trained accounting teacher to join its staff, should consider employing a local Certified Public Accountant, preferably one holding a Master's degree from a School of Business Administration. When this proposal has been adopted, it has been found in most cases that the CPA compared favorably, from the angle of educational background and professional achievement, with the professors of other departments, and was more successful in presenting accounting principles to students than had been faculty members transferred from other departments.

There is great concern at the present time relative to the insufficient attention devoted to auditing in most college curricula. A detailed study of the place of this course in the undergraduate or graduate curriculum merits study as does the closer correlation with auditing content with advanced work in theory, cost, tax and other courses.

The charge that college graduates cannot write or speak good English, that they cannot add simple columns of figures, and that they lack the mature judgment and resourcefulness demanded by the practical world, if true, is a serious indictment of much of our teaching. It should be analyzed by English teachers, mathematics teachers and accounting teachers, all of whom should firmly resolve that justified criticism might well be met by the introduction of courses in communication in the senior year, the emphasis of mathematical processes in courses using financial

data, and the stress of a professional attitude toward employment in every meeting of every accounting class.

One of the problems confronting the liberal arts educator today is how closely to correlate his offerings with the ever-enlarging responsibilities assumed by graduates in both private and public accounting. When auditing left the level of what has been termed the "holler and tick" method and became endowed with the attributes of a profession—a trend later duplicated by financial, managerial and cost accounting—it was evident that technical education and professional examinations had to be revised. Of these two, only the first-named, technical education, has been neglected and, in the light of current needs of the profession, of business enterprise and of the student body, no time should be lost in correcting this deficiency.

I submit that the aim of the liberal arts college should be to provide students with a broad introduction to accounting as a tool of efficient management and with sufficient attention to the growth, demands and opportunities in accountancy so that students understand the public and private fields of employment, and base their decisions to enter either area, or to reject them both for another occupation, upon this understanding. The liberal arts college should not encourage any tendency toward a specialist qualification in its students. Rather it should be motivated by the premise that, in whatever sphere its graduates may find themselves, their best foundation is the all-round experience acquired in a general education, balanced by basic courses in accounting, and later sharpened by contact with professional and business affairs.

Possessing the unique opportunity of being well-prepared to give students the broadest possible view of the accounting field, the liberal arts college usually can devote far more time to the cultivation of faculty-student relations than can the over-crowded university. In other words, the college can seek social as well as educational objectives, devoting proper attention to such unwritten topics as professional decorum and the cultivation of the independence of opinion and the breadth of interests forever associated with the truly educated college graduate. Some wise man has said that junior accountants are the diplomats of public accounting firms in clients' offices. This statement has important implications for teachers and for practitioners who should view the whole student, rather than a specialized area of his equipment.

In far too few instances do college faculties utilize community resources, by visiting companies, factories, banks and offices, and inviting local businessmen to bring practical problems before the class. English universities offering accountancy are aided by advisory committees of local practitioners; this liaison is viewed as a valuable link with the profession as to the nature and scope of teaching and the placement of graduates. Most college teachers would profit from employment during the summer months, as this experience would provide them with a wide range of illustrative materials for classroom analysis and discussion, and meet the oft-heard comment that college teachers are impractical idealists and know little of business affairs. The "ivory tower" attitude has no place in modern accounting instruction, and every facet of business and accounting practice should be explored for the purpose of enriching both the teacher's and the student's viewpoint.

Too much emphasis is placed upon the textbook in most college classes at the present time. Accounting teachers are sinners in this respect, although few of them, fortunately, fear to stray from the

printed problem because they do not wish to become hopelessly involved in a classroom discussion beyond their range of competence. Only an experienced instructor can guide an active class through the labyrinth of discussion, some valuable, some irrelevant, stimulated by references outside the textbook assignment to the practical business world. Few instructors read a sufficient number of accounting and financial periodicals, and still fewer pursue programs of research and writing essential to revitalizing the teaching process. Accountancy is not blessed with many scholars, an explanation being that the field is so relatively new that the avenues of research are only dimly envisaged.

Affiliation with the American Institute of Accountants, American Accounting Association, American Management Association, Controllers Institute of America or National Association of Cost Accountants, depending on the teaching interest, will enlarge the college instructor's fund of current information and, through attendance at annual meetings, bring him in touch with stimulating personalities in his own and contiguous fields. A wealth of material exists for classroom purposes in the journals of these societies, in the Bulletins of the Institute, in SEC releases, public utility commission rulings and in legal decisions, all of which can be used for case studies and to enrich otherwise textbook-centered syllabi.

The judicious combination of problems and theory, difficult even at an advanced level, possesses seemingly insurmountable obstacles in elementary work. The survey course, which the liberal arts college seems particularly fitted to offer, is the proper area in which to test new modes of instruction. Out of such experimentation should come a volume correlating basic theories of accounting with modern developments in industry and the profession, and presenting the elements of independence in public accountancy. Much more experimental teaching in accounting should be attained in the future than has been realized in the past. Perhaps this generation of educators needs a Henry Rand Hatfield to measure its deficiencies and to goad it to improvement. The removal of accounting courses from the realm of routine, to which they are often dedicated, to the area of interesting subject matter would silence much of the criticism launched against them by students and even by other teachers. However, the endowment of accounting courses with a modern pedagogical touch and a justified claim to exciting education remains largely unrealized.

Another topic barely attempted by the liberal arts teacher is the professional and business orientation of students. Too much dependence has always been placed by the college upon employers—public accountants, bankers, manufacturers or retailers—to indoctrinate their new employees. There is a complacent thought in the minds of too many accounting instructors, especially those who have come directly from the graduate school to the teaching profession, with no interval of practical experience, that what cannot be taught in the classroom can be learned "on the job." A serious analysis of the situation, however, indicates that the teachers themselves should have put forth added effort to prepare their students for the years of employment ahead. A major role in accounting education was assumed by public accountancy, from the early days of the British profession, when the spirit, traditions and reputation of the large partnerships were conveyed to staff members by firm training programs. In this manner the firms became imbued with a definite character, recognized from Rio de Janeiro to Rome and from Cairo to Calcutta. No one has expressed the transmission of professional tenets and ideals more adequately than Sir Albert Wyon at the International

Accounting Congress, Amsterdam, 1926. Fortunate is the American accounting partnership with affiliations or offices in Great Britain as staff members under such conditions can be transferred for a time abroad, with Britons brought to this country. The interchange of viewpoints, fostered in this manner, tends to enhance *esprit de corps* within the firm as well as discussion of techniques within the profession.

In this country, Haskins & Sells organized a research and training unit in 1918 under John R. Wildman, previously Professor of Accounting at New York University, while Price, Waterhouse & Company adopted staff training as an aim three years later when Professor J. Hugh Jackson, then of Harvard and now of Stanford, introduced a program which led to a pioneer volume on working papers. These are but two illustrations of the trend toward staff training in the organization itself. The proposal is made that some of the material available in staff programs of accounting firms be made available to the American Accounting Association and that these firms consider the qualifications of college teachers as lecturers. Frequently these teachers have more leisure to organize material and more experience in directing classroom discussion than public accountants whose teaching duties must be sandwiched in between the review of reports and the satisfaction of client's demands. Several firms in one area might cooperate in inviting a professor to lecture to joint staff meetings, possibly in the late afternoon or evening and using campus facilities. The education of accountants should not cease with college or with successful passage of the CPA examination; it is a continuing process, with refresher courses for seniors, managers and partners, within the partnership or on a campus, such as scheduled at Michigan and Cambridge Universities, considered a keynote of a progressive staff and firm.

Another area of inquiry is that of the approach to accounting education followed by the British profession since the 'eighties. This could be accomplished through a Fulbright or Guggenheim Grant to an American professor, or by the exchange of accounting teachers between American and British universities. By the method suggested a cross-fertilization of educational philosophies and methods would be attained between the two leading countries in professional accounting education. A thorough review of the English students' societies is also indicated. To these groups professional leaders, whose names are household words, bring their wisdom and experience before the rising generation. The British profession recently revamped its educational system to meet current needs, and under recommendations contained in the Carr-Saunders Report it has been urged to go even more deeply in this process. The time is now at hand for American accountants, preferably through the combined efforts of the American Accounting Association and the American Institute of Accountants, to assess the present demands in public and private practice and to ascertain whether these demands are being met efficiently and with attention to long-range educational aims. Such a survey would eliminate much of the dissatisfaction and uncertainty which exists concerning the present and future status of accounting instruction.

Professor Gilbert Murray of Oxford University has described the last fifty years of this century as "perhaps the most catastrophic period known to modern civilization." As other education, accounting education has been caught in this maelstrom. Teachers of all phases of accountancy in liberal arts colleges, and indeed in other institutions of higher learning, have made a valiant, if at times a somewhat ineffectual, effort to train students to cope with our

rapidly shifting economic climate, and to relate the complex technical knowledge of this age to human progress. Throughout introductory and advanced courses they have sought to emphasize the important part the private accountant plays in the managerial process, through the maintenance of financial records and the introduction of budgets and standard costs, and the equally vital task of the public accountant in auditing and certifying these results and in suggesting improvements in procedures. The efforts of accounting teachers deserve the complete support of the profession and of business, with this support based on the premise that the development of both public and private accountancy, to a large measure, depends on the presentation of techniques and ideals in college classrooms in an inspiring manner by sympathetic teachers.

The challenge is inherent in this paper. Whether accounting teachers can meet it by molding the traditions of education and relating them to the achievements of tomorrow, only they can answer.

GRADING OF THE AMERICAN INSTITUTE OF ACCOUNTANTS' EXAMINATION PAPERS*

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AS A SERVICE to the forty-eight states and four territories which use the examinations prepared by the American Institute of Accountants the Institute will grade the candidate's papers and recommend grades to be granted thereon by the local boards involved. Papers from some fifty-five hundred candidates were graded by the Educational Director's office in connection with a recent examination. The very weight and volume of this number of papers is imposing. The significance of the resultant grades to the candidates and to the profession of public accounting makes the grading process most important. The methods used to secure uniform and reliable results in this work will be of interest to those concerned with methods of testing and passing upon the qualifications of candidates for the CPA certificate.

PRELIMINARY PLANNING

Preparation of the Examination

Planning for the grading of the examination prepared by the American Institute of Accountants is directly connected with the preparation of the examination problems and questions themselves. Tentative questions and problems are carefully prepared and given a "test-run" with a selected "guinea pig" group of individuals as examinees. These persons are usually selected from recently successful candidates. The purpose of the test-run is to detect any possible flaws such as ambiguity, inadequate or excessive time allotments, and similar matters. Following this test-run the tentative questions and problems are revised in the light of the reactions of this group and with the aim of improving the "gradeability" of the responses of the candidates.

Selection of Grading Personnel

While the staff of the Educational Director of the Institute includes key personnel needed for the preparation of the examination and supervision of the grading process it is, of course, inadequate in size for the tremendous task of grading the papers submitted semi-annually for thousands of candidates. To meet the need for additional personnel, the present plan involves assembling carefully selected personnel drawn from the ranks of CPAs engaged in public practice, or teaching, for full time work in quarters provided by the Institute for the necessary four to six weeks of grading each six months. Where possible, those who have proved satisfactory in their work during one grading period are secured to assist in subsequent periods. For reviewing and regrading a limited number of the more experienced and dependable graders are selected. At least one supervisor is provided for the graders assigned to each sub-

* Professors Haun and Herbert observed the grading of the CPA examination last May and June as members of the Committee on CPA Examinations of the American Accounting Association.

ject. In the grading of one recent examination the graders were drawn from California, Connecticut, Kansas, Kentucky, Louisiana, Maine, New Jersey, New York, Pennsylvania, Tennessee, and Virginia with the greater number, of course, from New York. Approximately thirty per cent of those grading each subject were connected in some way with the teaching profession.

Physical Arrangements

As mentioned above, the grading is done at the office of the American Institute of Accountants in New York City. Approximately fifty square feet of working space is available for each grader. Substantial tables, covered with light green blotter paper securely taped down, are used. These are excellently lighted by overhead fluorescent lighting. Ventilation is good and interference from outside traffic is at a minimum. Thus, almost ideal conditions are provided for those doing the grading work.

As the examination papers are received in the office of the Educational Director of the Institute from the various State Boards they are first divided into groups of thirty or less for easy handling. Each "Group" is given a number, e.g. "Kansas, Theory, Group III," and a card is attached to the group indicating this number. Of course none of the papers have the candidates names on them, but each sheet contains the identifying number of the candidate, the location where the examination was taken, the subject, and the date. The candidate may have numbered the pages consecutively throughout, or consecutively for each question or problem with a new series of numbers for each question or problem. Thus the graders do not know the identity of the candidates but all papers of a given candidate are readily associated with one another and with the Group to which it belongs.

Grade Sheets

In advance of actual grading a set of approved solutions and answers is developed in the Educational Director's office and grade points are assigned to the different factors involved in the problems or questions. From this is derived a preliminary cover grade sheet for each subject except Practice. For Practice a separate grade sheet is prepared for each problem. A copy of this grade sheet is attached to each candidate's paper in each subject on which he wrote. For each problem or question the grade sheet lists each factor assigned a grade value. At the right of the sheet is space for the total credit earned on each question or problem. The selection of factors and assignment of grade points is done on a tentative basis after the test-run and therefore gives consideration to what the test-run has shown may be expected of a normal group of candidates.

Grade sheets are set up on a positive basis for Law, Auditing, and Theory, but on a demerit or negative basis in the case of Practice. Each grade sheet covers all possible points in the problem or question. Because of the possibility of different approaches, grade sheets for each question or problem normally have on them more points than the original points assigned the question or problem in the examination. This is done to take care of the various individuals who approached the problem or question from a different point of view and who have good answers but not the best. However, no candidate is given more total points than were originally assigned the question or problem in the examination. In the Practice portion of the examination the grade sheets provide a place where points can be added for form, ability of reasoning, etc. This is done to take care of the candidate who missed points, but who showed good reasoning, analytical or organizing ability which is exceptional, etc.

In the actual grading of the examination no mark is made upon the examination papers themselves. All grades and all marks for grading are put on the grade sheet. This grade sheet is prepared for ease in grading and the development of its final form takes several days from the start of the grading process. However, once a grade sheet has been given final approval it usually remains constant. The development of its final form involves the criteria used in grading and the processes followed in the first stages of the actual grading which are both discussed in later sections of this paper.

GRADING CRITERIA

It is well known that to pass any one part of the CPA examination a candiate must have a score of seventy-five points. Anyone experienced in the field of statistics or testing knows that the mere expression "seventy-five points" does not mean very much unless it is related to the original purpose of the examination. The actual grading process is not designed to determine exactly how many points out of some fixed and immutable "perfect" score have been earned by the candidate. It is designed, instead, to screen out of the candidates taking the examination those individuals who have evidenced a sufficient knowledge of accounting and related matters to qualify them to practice as certified public accountants. Therefore, since most states require seventy-five points as a passing grade this seventy-five points become simply the number of points assigned to the norm or standard of performance which it is considered necessary for a person to attain before he is recommended to the local board for the certificate. Thus the seventy-five points become a more important factor than is the "perfect" score of one hundred. In the actual grading one hundred points is very seldom considered and all correlations, review, and weighting of grades is centered on the seventy-five points value. Emphasis of the Educational Director's office in the establishing of grading criteria is directed at reaching the norm or standard of performance for which seventy-five points will be granted.

From what has been said it can readily be seen that the degree of mastery of a particular set of examination questions or problems which must be required of the candidates will vary from examination to examination depending upon the ease or difficulty of the individual examination. This does not mean that those taking a given examination would be graded on one standard and those taking other examinations on a different standard, but that examinations given at different times and including different questions (as they obviously must) may be graded on different grading scales so that the standard of performance on the different examinations will be constant. This naturally requires the application of a certain amount of judgment and the use of the utmost care in developing the grade sheets indicating factors to be considered in grading and the point values to be assigned to each such factor.

THE GRADING PROCESS

Prior to the start of work by the graders as a complete group the supervisor and/or a grader to be assigned to review and regrading run through a limited number of papers in a subject and indicate on the tentative grade sheets the grades they would give the candidates on each question or problem. These grades are based on the approved solutions and the points assigned to various factors as indicated on the preliminary grade sheets. They must also, of course, be based in part on the grader's own judgment based on the relatively limited number of papers involved in this preliminary grading. This is done to provide the graders with a tentative

check on their early grading and usually involves only one or two "Groups" of papers.

As the graders assigned to a given subject are assembled each is assigned a given question or problem on which he is to work. One or more graders will be assigned to a single question or problem, but no one grader will normally deal with more than one question or problem. As a result each grader quickly becomes thoroughly familiar with all phases of the grading of that item he is to work with and the grading of the papers of different candidates on that item is more readily maintained on a uniform basis.

Upon assignment, the graders (each of whom will have previously familiarized himself with the examination) make an intensive review of the specific subject matter involved in the question or problem to which they are assigned. This is done in the Institute Library and by study of the approved solutions and grade sheets, as well as by consultation with the supervisor of that subject. Following this review each grader selects a "Group" of the papers graded by the supervisor or review grader in the preliminary grading process mentioned above and, without noting the grades assigned by the previous grader, reads the papers and arrives at the grades which he would give to the answers to the question or problem assigned to him. It might be mentioned here that the graders are cautioned in all their grading to arrive at their own conclusions without prior reference to any other grades assigned to any part of the particular candidate's paper.

As the graders proceed with their reading of the above mentioned pre-graded papers and with additional ones making up a total of about one hundred they keep in constant touch with the supervisor for that subject for criticism of their decisions and to point out to the supervisor the type and nature of candidate responses which may indicate possible need for variations in the original conclusions as to factors on which to base grades and the points to be assigned to each factor. As a result of this procedure, after a limited but substantial number of papers have been dealt with, the Educational Director may modify the grade sheet. This final revised form of the grade sheet is then reproduced and a copy is attached to each candidate's paper for that subject (removing any earlier tentative grade sheets which may have been attached). By this time the graders will have become fully acquainted with the types of answers they may expect and the values agreed upon for various points covered in the answers and solutions.

When the above stage has been reached an additional fifty or one hundred papers are graded by each grader and these grades are reviewed by the supervisor and the Educational Director to determine whether or not the graders have now reached the point where their grades are uniformly in line with the now established grading criteria and produce comparable scores for different candidates with equally meritorious papers. When the Educational Director is satisfied this point has been reached the final draft of the grade sheet is attached to all the papers previously graded and these papers are then graded anew. The graders then proceed with the grading of the remaining papers in the examination. This assures that all papers, including those first graded, receive equal consideration.

As indicated above, each grader is assigned to a particular question or problem. In mass grading work assignment must of necessity be varied slightly to permit completion of the grading of all questions on papers in selected groups at approximately the same time. To accomplish this the more versatile graders working on questions on which grading has forged ahead are reassigned to other questions or prob-

lems on which grading is lagging behind. In each such case the grader changing over goes over the grading processes for the new question very carefully with the grader who has been on that question, and with the supervisor, before actually undertaking the grading of any papers. Then as he grades the first fifty or one hundred papers he makes frequent comparisons with the other grader on that question or problem and with the supervisor or reviewer in order to make certain that his grades will be in line with grading criteria and comparable with those of the other grader. By this means it is possible to arrange for completion of all papers for a given state or group of states before getting too far involved with a new set of papers. Obviously some sort of procedure such as this is necessary in handling such a great mass of papers as is dealt with by the Institute at each examination period.

Review and Regrading

When all questions or problems on all papers in a given Group have been graded that Group is routed for review. As indicated earlier, this review is done by the supervisor of the graders for a given subject and by a limited number of graders assigned to review. This is a highly important part of the grading process and cannot be begun until several days after the grading has started since it is necessary first to develop the final form of the grade sheet and have the graders fully prepared for final grading work.

Preliminary to review of the papers, and to aid in the selection of those papers requiring greatest attention, the total grade of each candidate for all parts of the individual subject is computed and recorded on the grade sheet accompanying his paper. The reviewer's first step is to verify the mathematical accuracy of this addition. In so doing he will note any grades for the candidate on individual questions or problems which seem high or low in comparison with the apparent over-all caliber of the candidate's responses as indicated by his total grade for the subject and his general level of grades on the individual questions or problems. If the reviewer finds no such out-of-line grades for a particular candidate, and if the total grade for this subject is clearly too low for the candidate to have any chance of passing or is too high for him to have any chance of failing, the grading of the original graders receives little further attention. Papers with out-of-line grades, and papers with total grades approaching the borderline are given more careful scrutiny by the reviewer.

With respect to out-of-line grades for individual questions or problems the reviewer makes a new and independent determination of the grade to be given for that question. For this purpose he has, of course, fully familiarized himself with the guide sheet of factors and grade points for grading each item and has sat in on the consultations where these factors and points were established. However, the reviewer now gives considerable attention to the over-all caliber of the answer to the question or the solution to the problem. This has the effect of overcoming the danger of the grading process becoming stereotyped with resultant failure to recognize merit where a peculiar attack is employed by the candidate or with resultant overgrading by the graders where the candidate has stated conclusions in line with approved solutions but by his reasoning indicates clearly he fails to understand the principle involved.

All papers approaching the passing point on either the lower or the upper side are thoroughly reviewed by the reviewers to ascertain any possible adjustment which should be made in the grades on individual questions or problems which may result in the raising or lowering of the total grade for the candidate. Here again the reviewer

takes an over-all view of the candidate's responses to a greater extent than could have been done by the original graders who of course dealt with each separate question or problem on an independent basis and may have failed to recognize meritorious answers for the reasons indicated in connection with review of out-of-line grades.

Upon completion of the review of an individual paper the reviewer's grades are totalled, or added with those for questions or problems not reviewed where only out-of-line grades are reviewed, and the new totals are recorded on the grade sheet. This becomes the tentative grade for the candidate, as are the grades for those candidates whose original grades were not reviewed in detail because clearly passing or failing on the basis of the original grading.

The grades mentioned above are referred to as tentative for the reason that after all subjects taken by an individual candidate have been graded his grades in all subjects are brought together and an estimate is made of the possibility of unreliability of the grade given him in any particular subject because of its variation from his apparent over-all caliber as indicated in all those parts of the examination which he took. Where a candidate's grade on a given subject thus appears out-of-line his paper on that subject is sent back to the reviewers for that subject for regrading. His paper now receives a most careful reconsideration in all respects. New grades for each question or problem and a new total grade for the subject, is determined and becomes the grade to be recommended to the local board for that candidate in that subject. The reviewer of course knows the paper is being regraded because of its being out-of-line with the over-all record of the candidate.

CONCLUSIONS

It is the opinion of the writers that the procedures followed by the American Institute of Accountants in grading the papers of candidates for the certificate of Certified Public Accountant reach a highly reliable result in separating the qualified and unqualified candidates. Officials of the Institute recognize they have a great responsibility to the profession in their preparation and grading of the examination. There is an obvious desire on the part of the Educational Director and the Board of Examiners to make certain that the examination does what it is supposed to do and that the grading is as fair as it is humanly possible to make it. One cannot help but be impressed, in observing the grading, with the amount of correlation studies made to determine the relationship of each day's grading to the standard, the relationship of an individual's grades to all other grades on the same question or problem, the relationship of an individual's grades to all other grades in a part of the examination, and the constancy of grading by each grader.

The inherent difficulty in grading answers to subjective type questions is well recognized in the establishment of grading norms or standards of required performance and in the working out of grade sheets for the different parts of the examination. In spite of the shortcomings of the subjective type of question the writers are convinced from their observation of the grading done by the Institute that satisfactory results can be obtained through its use. At the same time they are equally convinced that some use of objective type questions will permit coverage of a wider range of subject matter without disturbing the over-all reliability of the grades. Distribution charts showing grades of individuals on each type of question as compared with his over-all grade, and other correlations studied in the Educational Director's office indicated no apparent superiority in reliability of one or the other type of question in measuring the candi-

date's mastery of accounting.

Since there are so many conditions that vary the taking of an examination, and the grading of that examination, the standard of performance of seventy-five is a varying and not a fixed one. This standard remains fairly constant from examination to examination since it has upper and lower limits of quality of performance which must be recognized and observed in order to keep the caliber of those who receive the CPA certificate at a uniform high level without at the same time excluding any candidate who is adequately qualified. The Education Director and the Board of Examiners of the American Institute of Accountants seem to have done an extremely good job of establishing required standards of performance.

Grading by the American Institute of Accountants is carried on in a highly conscientious manner. It is done by carefully selected graders working under physical conditions which are almost perfect. Required standards of performance are worked out for all parts of the examination with the utmost care and painstaking effort is made to assure that grades assigned to individual candidates are reliably related to those standards. Efficient supervision of the grading process is provided in the Educational Director's office by means of day-by-day watch over the grades and the graders which is effected through reports and statistical techniques employed. The grades recommended to the local boards can be accepted without question.

OBSERVATIONS FOR CANDIDATES AND TEACHERS

Many candidates who appear to have a considerable knowledge of accounting exhibit in their examination papers an inability to read and interpret questions or to understand and follow directions. Where the answers of most candidates indicate questions are well stated many candidates still fail to properly read and interpret the question or to do what is requested. Another common failure which is closely related to this is the failure of many candidates to express themselves clearly in good English. Under the method of grading followed by the Institute a candidate who does read the question and proceed to do what he is told will gain considerable credit for a clearly expressed response even in case of failure to see all the essential principles involved.

The papers of many candidates evidence a lack of organized thinking. Often the candidate's thoughts appear to ramble, and so do their words, with resultant waste of valuable time and energy. Such candidates could well spend more time organizing their thinking before proceeding to state their answers.

From discussions with other teachers, and as a result of reading the prepared answers to examinations appearing in the ACCOUNTING REVIEW and the *Journal of Accountancy*, we had come to the conclusion that short, concise answers were always best. Under the grading system used by the Institute in Auditing, Theory and Law, where the grading is on a positive basis, it is impossible for the candidate to receive all the points his knowledge might justify if his answer is too brief. Relevant points, assigned some credit in the grading, may easily be omitted in short answers. On the other hand, the paper in which the candidate simply attempts to overwhelm the grader with words gets no additional credit unless such relevant points are covered. Here again, the suggestion is in order that the candidate organize his thinking with the aim of noting and relating all relevant points before starting to write his answer. Otherwise the answer may well be too brief to obtain maximum credit in accordance with the candidate's knowledge.

THE GERMAN FEDERAL AUDIT COURT

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The West German Parliament in 1950 re-established a central German Audit Court (Rechnungshof), traditionally one of the most respected and useful institutions in the entire German governmental structure. This body and its work are not without interest to American accountants and students of government who, witnessing an astronomical growth in Federal expenditures and taxes, are today concerned with methods which might improve accountability to Congress of our Federal departments and agencies for their million- and billion-dollar programs. In fact, the main purpose of this article is to describe and appraise the work of the Rechnungshof in order to discover whether any features of this old established continental institution might possibly be adapted to the work of the U. S. General Accounting Office. The word "adapted" is used advisedly because of the difference in traditions and in governmental structure.

Independence of the court. For effective work the post-auditing agency in any government must be an independent body. Its officials must be free in their audits and investigations to criticize the government departments and agencies without fear of reprisal. The body must also not be subservient in position to the finance minister, the cabinet, or any part of the executive branch. This independence of the German central audit court is today protected by a number of safeguards:

1) the Reich Budget Ordinance[1] and the Law of November 27, 1950[2] specifically provide that the court is a "highest federal authority," independent of the government and subject only to the law. It is not subordinate to the cabinet (chancellor and ministers) nor the president of the Federal Republic.

2) Article 114 of the new federal constitution (Basic Law) provides that the members of the Rechnungshof "shall enjoy judicial independence." Appointments are for life, which life tenure is protected in the same manner as for judges. Because of the members' status this administrative body (which is not a true court in the Anglo-American sense) has quasi-judicial status and the dignity of a court.

3) appointments are by the president of the Federal Republic (and not the Federal chancellor who is a member of the government).

4) the salary of a member continues for life should his position be abolished upon some reorganization of the Rechnungshof even though no post is found for him in some other part of the permanent civil service.[3]

5) the final account of the court is separate from that of the government and is

* The authors are indebted for constructive criticisms to Col. John S. G. Wilson-Heathcote, former British Observer in Land Rhine/Pfalz, who played an important role in the organization and operation of the British Zonal Rechnungshof 1946–1948, and to Direktor Franz Haaser of the Federal Court.

[1] Reichshaushaltsordnung (cited as RHO). The RHO was issued for the purpose of implementing the provisions of Article 86 of the Weimar Constitution. The RHO is still in effect, including amendments made between 1933 and 1945 in so far as they are not contradictory to principles of democracy.

[2] Law concerning the Establishment and the Functions of the Federal Audit Court, November 27, 1950.

[3] Basic Law, Art. 97.

submitted direct to parliament.[4]

Thus within its sphere the court's independence is limited only by law. The only effective control which the government (cabinet) might have over the Rechnungshof is over its budget. The president of the Rechnungshof submits his estimates to the finance minister (as does the parliament). The finance minister in the first instance may reduce these estimates but subsequent review is with the cabinet. It is required that the finance minister must expressly inform the cabinet of any changes in the Rechnungshof's estimates. Should any attempt to obstruct the work of the Rechnungshof ever be made by the cabinet or the finance minister, the parliament would be in a position to restore the estimates.

Organization and personnel. The Federal Audit Court consists of its "members":—the President, Vice-President,[5] Direktors (at present four), and those Ministerialraete who have been so appointed (at present 24). The Direktors are the administrative heads of the main departments and carry the rank of Ministerialdirigent. The Ministerialraete direct the various audit branches specializing in particular fields, and are responsible for the accomplishment of audit tasks and for supervision of the audit staff. The qualifications for all these life appointees are the same. Only persons who are over 35 years of age are eligible. Members of the court must as a rule have qualified for the office of judge (at least one third of the members must have so qualified), or for the higher administrative or higher technical service of the Federal government or of a state (Land). The appointments are made by the president of the Federal Republic, the appointments, however, being countersigned by the finance minister. The nominations for Direktors and Ministerialraete are made by the president of the Rechnungshof. He may also appoint from the Direktors a deputy president.

These members with life tenure are all active participants in the court's work. They may not at the same time be members of the Federal parliament, nor of the Federal government or of any state agency.[6] In addition the Rechnungshof has a staff of auditing officials (now about 150) who are appointed by the president of the Rechnungshof. There is also a "presidency," which includes both an administrative, secretariat staff[7] and a section for the preparation of decisions reserved to the president under the Reich Budget Ordinance and other official business assigned to it by the president or vice-president. Direktors and Ministerialraete may be assigned to perform certain duties in the presidency along with their other work but they may not be taken away from their regular technical responsibilities.

For work the Audit Court is organized into:

1) Four main audit departments (Pruefungsabteilungen). Within the departments most of the Rechnungshof decisions are joint decisions of two officials (the Direktor and a Ministerialrat) who constitute for a problem a "section."

2) Senats (chambers or panels) of five members each. Their work follows the same division of labor as the departments:[8]

> Senat I (and Department I): general matters pertaining to the budget and cash accounts; federal property; federal aid to Berlin; civil servants' salary and pension matters; legislation on working

[4] RHO Sec. 108 (3).
[5] President Joseph Mayer heads the court with Dr. Erwin Meyer as Vice-President.

[6] Article 12, Law of 1950 *supra*.
[7] It is responsible for all internal administration, personnel and internal accounting, and maintains a central typing pool, the archives, and a library.
[8] In general auditing specialists work from ministry to ministry within their special area of responsibility.

conditions (Arbeitsrecht); social welfare, and pensions for war disabled.

Senat II (and Department II): administration of interior problems (mostly in the Ministries of Interior and Justice) and of foreign affairs; refugee matters; taxes and customs.

Senat III (and Department III): general matters of economics and communications, such as: the federal railways: federal post and telecommunications; other Federal government participations in business enterprises.

Senat IV (and Department IV): defense costs (formerly occupation costs); food and agriculture; administration of legislation of the burdens of war losses.

The president acts as Senat chairman. The other members are: the departmental Direktor, the specialist Ministerialrat and two other Ministerialraete appointed by the president. The sections refer matters to a chamber for action if the competent Ministerialrat or Direktor proposes such a disposition of the matter at issue, or if the president decides that a matter should be referred to a Senat.

3) the Gross Senat (or high chamber), which consists of the president, vice-president, the four Direktors or their substitutes, and three Ministerialraete appointed by the president for a calendar year, or their substitutes. These will be joined in each case by the Ministerialrat specialist and the Ministerialrat charged with the drawing up of a joint report. The Gross Senat takes decisions on any matter which concerns the competency of more than one Senat, or on matters required by members or referred to it by the president.[9] The president may also want to hear the Gross Senat before taking his own decision on matters reserved to him.

Decisions in the Senats and in the Gross Senat are by majority vote; the chairman has the deciding vote in case of a tie.

The Nazi regime, in accordance with the "leadership principle," strengthened the power of the president over the other court members. In the new court the pendulum has swung partially back. Formerly the president under RHO Sec. 126f issued the code of procedure. This power now rests in the Gross Senat; important because the code fixes the rights and powers of the president except in those instances prescribed by the RHO or the Law of 1950. The president has the final word on all efficiency and organization surveys since the Gutachtenabteilung[10] is part of the presidency. He may not, however, alter the content of court decisions. If he amends the form, the Direktors and Ministerialraete have to be informed. He may not influence audit decisions nor by orders restrict the accomplishment of audit tasks.

History. A central audit court in Germany dates from the creation of the German Empire in 1871 when the Rechnungshof des deutschen Reichs was established to audit the new central government's accounts. It was patterned after the central audit court in Austria and the leading German state audit courts some of which had had a long history, the Prussian Oberrechnungskammer, for example, dating from 1714. The president of the new court was also made the head of the Prussian chamber which in fact, but not in name, was merged in the Reich organization.

Under the Weimar Constitution the powers of the Rechnungshof were strengthened, and with the enactment of the Reich Budget Ordinance,[11] its composition, powers and duties were codified.

[9] The Gross Senat may from time to time modify the internal organization of the court and its working procedures. The latest code of procedure is as of September 10, 1951.

[10] See section following on "Efficiency and organization studies."

[11] December 31, 1922.

The ordinance in section IV placed the responsibility for over-all supervision of budget administration in the Rechnungshof; section V prescribed the organization and personnel.

The Third Reich abolished the Laender (state) audit courts and made the RHO applicable to their accounting and auditing systems which were integrated with those of the central government. The Rechnungshof did not escape Nazi party interference;[12] the major change in the court was the granting of over-riding powers to the president of the court which materially reduced the powers of the other members. With the abolition of the Reichstag, the reports of the Rechnungshof on the final appropriation account went to the cabinet for final action. The Reichsrat (upper house of parliament) received an information copy, and technically the cabinet did not grant a discharge until the comments had been debated in the Reichsrat.

The capitulation in May 1945 brought with it confusion. The Allies recognized, with but very few exceptions, none of the old Reich government agencies. The head office of the Rechnungshof had been in Potsdam (in the Soviet Zone) and its records were not available to any successor organizations in any of the western zones.[13] The French encouraged the three Laender in their zone to establish audit courts and created a central advisory finance committee made up of the presidents of the three courts. But this body advised the French military government authorities more on tax and budget problems than on audits and investigations. The Americans took no active steps to reconstitute the Laender courts; the Laender, however, took the proper measures.[14] The British, by way of contrast, adopted a more centralized form of government in the UK Zone and took constructive steps to create a British Zonal Rechnungshof at Hamburg. Operation actually began in August 1945 although Military Government Ordinance No. 62 was not officially promulgated until December 1946. The main office was built around the Hamburg regional office of the former Reich Rechnungshof. The ordinance provided that the court would have in the UK Zone the functions and powers of the former Rechnungshof and of the Prussian court, would audit not only the zonal budget accounts but through branch offices the accounts of the new Laender, and would be subject to direct supervision by military government. This court, allowed a high degree of autonomy by the British authorities and with the best of the former Rechnungshof personnel, was highly successful.

With the merger for certain "economic" (and governmental) purposes of the UK and US Zones into the Combined Economic Area (Bizone), the various British zonal organizations were dissolved. The Zonal Rechnungshof was officially disbanded on November 30, 1948 by the repeal of Ordinance 62 but a small liquidation section was retained until February 28, 1949 to wind up and prepare the final appropriation audit report on the zonal budget.[15] By this date the four Laender of the UK Zone had established their courts so that auditing work could be continued. These courts were organized from the former branch offices of the zonal court, and the city auditing office of Hamburg.[16]

[12] When a vacancy arose by death, the president's position was filled with a purely political appointee. From that time on strong pressure was brought on the personnel to join the party, and promotion was conditioned by party activity.

[13] There is still a central audit court in the Soviet East Zone of Germany but no Laender audit courts.

[14] Likewise no help was given to one of the Laender audit courts in its struggle to become a body independent of the land finance minister.

[15] The Laender of the British Zone continued until April 1, 1950 under another name a small special task court to work on overlapping problems.

[16] Dating from as early as the autumn of 1946 efforts were under way to strengthen the Zonal Rechnungshof branch offices and to negotiate for the pas-

The Bizonal Rechnungshof, which audited the accounts of the new Bizonal Economic Administration and the occupation cost/mandatory expenditure accounts of the two zones, was created by Bizonal Economic Council Ordinance of November 3, 1948, but was not established until early in 1949.[17] This court was built around the personnel of the former Zonal Rechnungshof and was its successor in fact though not in law. Its work was so satisfactory that upon establishment of the new Federal government in September 1949 the Bizonal Rechnungshof was retained on a contractual basis to audit the new Federal departments and agencies and continue its work in the two zones. The new Federal Rechnungshof (Bundesrechnungshof) was established by Law of November 27, 1950, but by Article 14 its existence was predated to April 1, 1950. The seat of the new court is in Frankfurt/am/Main,[18] as was true for the Bizonal Court.

Main functions. The new Federal Rechnungshof has responsibilites both to the government (the administration) and to the parliament. The first objective is to assist in improving administrative control. This is done by the court submitting information on its findings and objections to the audited departments and institutions for correction and for confirmation of action taken when required, and by sending to the cabinet a summary of its findings for appropriate action. The second objective is to safeguard that the State is administered as prescribed by law and to report to the parliament thereon, especially whether the government has followed the budget law, and whether phases of finance or organization require parliamentary action.

Some of the work of the court can be regarded as preventive. Its recommendations, for example, may be that the personnel and tasks of offices could be reduced or abolished; that interest on surplus monies is not being earned; or that the government is making loans at interest rates below what the market requires. This preventive work is facilitated by the possibility of raising objections at the proper time through attendance of court members or representatives in the ministry of finance when budgets are under review, and at parliamentary hearings.

The work of the Rechnungshof is strengthened by the fact that its two major objectives are accomplished through administrative and efficiency audits as well as pure accounting post audits although as a general rule the audits are financial audits.

To be more specific as to the court's activities, the following are its main responsibilities:

1) to perform currently during the year post audits of budgetary operations, and after the closing of the books to complete these audits.[19]

2) to carry out studies of any administrative defects observed during the course of post audits and of methods for more efficient and economical administration, and to make proposals to the government and to parliament.

3) to report on any important objections which may arise from supervision of the audit of enterprises in which the Federal government has a financial interest.

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sage of Laender legislation so that these branches might eventually be converted into Laender audit courts. In two Laender—Hanestadt Hamburg and Schleswig-Holstein—the small size of the Laender permitted the merging of the Pruefungskammer (an agency responsible to the minister of interior for the audit of grants-in-aid to municipal authorities) with the proposed Laender courts.

[17] Some delay was caused by difficulties over office and housing accommodations and in the screening of staff.

[18] Feuerbachstrasse No. 50.

[19] If in a given case certain budgetary authorizations are not to be audited by the Rechnungshof as regards the purpose for which they are to be used, special provision to that effect must be made in the budget.

4) during the occupation period to prepare a special audit report for the Allied High Commission on expenditures for occupation costs and other mandatory outlays.

5) to submit annually to the finance minister and through him to parliament an audit of the final appropriation account of the government together with comments and recommendations. The finance minister is given an opportunity to take definite action to remove objections to the final account and to reply to the comments, but he must transmit to parliament the report of the court president and the remarks of the audit court without any changes.

6) to take the necessary steps to recover monies whenever shortages appear in any financial accounts.

7) to render advice and counsel on budgetary, accounting, and financial reporting problems upon the request of parliament, the finance minister, or any operating department or agency. A member of the Rechnungshof attends the parliamentary committee budget hearings in the course of which opinions may be asked for. The court's advice may be sought as to whether certain proposed expenditure estimates are economical or not, or whether changes in organization or methods are advisable. Opinions are usually given in writing.

8) to advise on budgetary and accounting instructions prior to their issuance,[20] and in certain cases to give prior consent,[21] thereby acting as a focal point for the establishment and maintenance of more uniform and more effective procedures in the Federal government, and enabling all executive departments, corporations or agencies to make use in their financial administration of the experience and knowledge of the court.

9) to undertake, at the request of either house of parliament, special investigations of alleged waste, inefficiency or fraud.

Worthy of note is that the Rechnungshof is not charged with routine, administrative pre-auditing of accounts, but concentrates on postauditing. Similarly it does not design and install accounting systems but rather advises on proposed administrative action in this field.

In order to carry out its objective of more efficient and economic administration, as well as compliance with the law, the Rechnungshof has wide powers to institute special audits and investigations, to require the submission of documents files, and reports, and to review all financial ordinances, decrees and regulations.

Efficiency and organization studies. One of the major functions of the Audit Court (as listed above) is to carry out studies looking toward simplification and rationalization of the Administration.[22] The Weimar Republic in 1923 established separate from the Rechnungshof a Reichssparkommissar (a Reich Savings Commissioner) whose duties were to make efficiency studies in the central government and to report its findings to parliament. A special power was added in 1924 relating to personnel reductions. This office was abolished by the Nazis and its original functions transferred to the presidency of the audit court.

The new Federal government has reestablished this special department of the

[20] The RHO Sec. 100 (2) provides that the Rechnungshof must be consulted as to its opinion prior to the issuance of regulations for the execution of the budget, and of general official instructions issued by the federal ministers in connection therewith. Among these are included in every instance general official instructions concerning the bookkeeping and management of cash offices and storerooms.

[21] For example, instructions for the keeping of cash books where these books together with the vouchers are submitted in lieu of final accounts.

[22] This is in contrast to the work of the Comptroller and Auditor General in the United Kingdom which is confined to pure audit. The British Treasury has the responsibility to examine and report upon the establishments of government offices and upon economies in administration.

presidency, the Gutachtenabteilung, whose head is one of the four Direktors. In addition to preparing the decisions reserved to the president this department undertakes special organizational and efficiency studies. The staff is equipped to do this type of work. In fact the recruitment of auditors from officials with long experience in the ministries means that the Rechnungshof always has experienced government specialists at its command. Reports and recommendations may be required by specific request of the government or parliament, or may be made on the court's initiative. A similar request may come from a Land (state) government. The report in each case is addressed to the agency requesting advice.

The following are the main studies performed to date by the new Gutachtenabteilung: the administration of the two houses of parliament; the patent office; the office of passport control; certain newly established offices and ministries; the organization and administration of Land Schleswig-Holstein; and the same for Land Lower Saxony.

In contrast to the Senat decision emanating from the main departments, the final decisions of the Gutachtenabteilung rest with the president. He can determine alone the form and precise recommendations of the efficiency and organization studies.

Agencies audited. The jurisdiction of the Federal Audit Court is wide. It embraces all Federal agencies and operating administrations, all Federal public corporations, and any institution, agency or foundation (private or public) receiving Federal grants or subsidies or handling Federal funds.[23] As to the latter the Law of 1950 specifically provides that the court shall have jurisdiction where authorities other than those of the Federal administration:

"1) execute parts of the Federal budget, or

2) have received Federal funds for the accomplishment of specific projects,[24] or

3) administer Federal property or Federal funds.[25]

As to Federal enterprises which have the form of legal entities-at-public-law, the audit is governed by the laws and statutes of the enterprise. However an audit by the Rechnungshof must be provided for (RHO, Sec. 88).

The post and telecommunications administration (now the Bundespost) has always been audited by the Rechnungshof.

The Law of 1950 is specific as to auditing the Federal railways (Bundesbahn) and the public insurance funds. It provides that the Federal Audit Court shall audit the budgeting and budgetary administrative procedure of the Bundesbahn property; of the social insurance institutions where they are subsidized out of public funds; and of the unemployment insurance and unemployment relief funds. Audits of the Federal railways, however, are carried out pursuant to specific regulations issued jointly by the Federal minister of finance, the Federal minister of transport, and the Rechnungshof president. The 1939 Railway Law gave the president of the court only the right to audit the balance sheet and to make inquiries. Under the Law of 1950 the existing special audit service of the Bundesbahn will continue but the results of this work will be the basis of the court's audit. The social insurance agencies were not subject to a complete audit by the court prior to the Law of 1950 because of special exemptions under a Law of 1934. They were audited only for the use made

[23] The government may also require the Rechnungshof to audit the accounts of any agencies, Federal or otherwise, which have been authorized by the Federal government to organize and conduct public collections.

[24] For example, submarginal Ruhr coal mines if they should again receive subsidies as under the British Zonal budget and the Bizonal budget.

[25] Law of November 27, 1950, Art. 4. See also RHO Secs. 87 and 88.

of the public subsidies. They are now audited completely if they receive public subsidies in order to ensure more economical administration and lower requirements from the Federal budget. Practically all social insurance institutions are now receiving Federal subsidies because of their added burden of payments to refugees.[26]

The audit of corporations-at-private-law and cooperatives in which the Federal government has a direct or indirect interest as a shareholder or partner is governed by section IVa of the RHO which provides for Rechnungshof participation in prescribing the audit specifications and in the selection of an expert auditor or firm to audit the undertaking. On all such legal entities the Rechnungshof receives through the appropriate Federal minister the regular financial reports, together with supporting documents, as audited, and normally bases its report to parliament on its review of such reports and documents. If the company statutes or a special agreement permit, the Rechnungshof may have the operations and records scrutinized by its deputies, or require a supplemental audit by the approved auditor or firm. If the government is entitled to all or a substantial part of the net profit of an undertaking, the Rechnungshof has the right to scrutinize the final accounts and the business management.

Methods of operation. In the work of the Rechnungshof the basic activities are (a) auditing, (b) the arrival at formal decisions and (c) the preparation of written memoranda, comments and reports. These are all governed by a code or rules of procedure issued by the Gross Senat.

The Rechnungshof has many strings to its post-auditing bow. Usually the deputies or staff of the Rechnungshof work from preliminary audits already made by competent auditors within the operating agencies. Results of these administrative post-audits, together with the necessary explanations, comments and certifications, are carefully scrutinized. The administrative auditors must transmit to the Rechnungshof any certifications, and advise it of any deviations and violations which they may have observed in regard to the accounts audited. The Rechnungshof may at any time call for the accounts audited; examine, amplify or amend the auditor's remarks and the decisions taken; and may take its own decision on the auditor's comments. From time to time the Rechnungshof makes certain that the administration of budget authorizations, the rendering of accounts, and the auditing of accounts are being carried out as prescribed.

In lieu of a preliminary, administrative audit the Rechnungshof may prescribe a joint post audit by deputies of the Rechnungshof and of the administrative authorities. The Rechnungshof may also independently make complete, partial, or test-check post audits of particular phases of an administration.[27]

The auditing programs are generally designed so that where there are a large number of offices in a branch of government, such as the custom offices[28] in the Federal ministry of finance, every office is covered at least once in every three or four years in such a manner that a true cross section of the whole is obtained each year. Important offices like the Oberpostdirektionen and the Oberfinanzdirektionen are covered each year, a cross section of the sub-departments of such offices also being subjected to detailed examination.

With so many approaches to its work schedule, the Rechnungshof attempts to secure adequate audits with the most efficient use of its staff. Besides reliance on a careful scrutiny of administrative audits,

[26] Basic Law, Article 120.

[27] Only in exceptional cases are these "surprise" audits.

[28] Zollaemter.

on partial audits or test-checks, and on the omission from its annual audits of unimportant accounts, maximum use of staff is accomplished by specialization within the auditing staff, by the performance of audits in regional offices, and by the establishment of audit teams for on-the-spot work within operating agencies.[29] The older procedure of having all accounts with supporting documents sent to the head office was long ago abandoned. On the other hand the Rechnungshof may require that the accounts themselves together with supporting vouchers be sent to the Rechnungshof for audit, or may waive the submission of accounting vouchers.

The scope of the audit work is prescribed in the RHO. Sections 88 (a) and 96 provide that the audit must cover the following points:—

1) whether the budget, including the supporting documents, has been adhered to; and whether all extra-budgetary rereceipts and expenditures have been properly accounted for.

2) whether the individual amounts in the accounts have been justified and vouched from a functional and a mathematical standpoint in the prescribed manner.

3) whether in the raising and collection of revenue and in the utilization and disbursement of Federal funds, as well as in the purchase, utilization and sale of Federal assets, a procedure has been followed which is in accordance with the existing laws and regulations, which complies with the relevant administrative regulations, and which satisfies the need for economy.[30]

4) whether establishments have been maintained or positions retained, or whether in other ways Federal funds have been disbursed which could have been curtailed or economized without prejudice to the administrative purpose pursued.

5) whether in the case of Federal taxes the assessment amounts have been fixed and their bases ascertained in accordance with the existing laws and regulations and taking into consideration the authoritative administrative regulations. This type of audit was discontinued during the war but is slowly being undertaken again by the Federal Court as to Federal taxes. A sample audit only is taken to assure that taxes are being assessed and paid in the correct amounts.

In addition, Article 114 of the Basic Law requires the finance minister to include in his annual final account a survey of all assets and liabilities. This extends the audit of the final account to Federal property and debt.

For the purpose of controlling the administration of the budget the Rechnungshof may also scrutinize the cash balances, advances and safe-custody items on the basis of the books and other supporting documents.

The Rechnungshof is required to advise the agency under audit as soon as the audit is completed.

After the first major step is taken—the making of an audit, the Rechnungshof must next arrive at formal decisions. These are done either in sections of two members, in Senats (chambers) of five members, or in the Gross Senat (the high chamber) as was described under "Organization and personnel."

The decisions reached result in some form of written document usually prepared by the reporting member, and signed by the member in charge of the matter at issue of the section or chamber, unless the

[29] The Rechnungshof in agreement with the competent Federal minister and the finance ministry may set up permanent auditing offices within an operating department or agency. The representatives will, of course, be subordinate to the Rechnungshof president, both functionally and personally.

[30] Accounts pertaining to all assets of the Federal government (even though not in monetary form) are subject to audit.

right of signature is reserved to the president. The document embodying the decision may be:

1) strictures or objections. The Rechnungshof must notify any such to the respective administrative authority in order that it may answer them and take appropriate action. The time limits for meeting strictures are fixed by the Rechnungshof.

2) comments together with an attached memorandum from the Rechnungshof president in which the most important results of the audit are summarized. The comments must show in particular:

a) whether the amounts listed in the appropriation account under receipts and expenditures agree with those which are reported in the cash office accounts under receipts and expenditures, and whether they are vouched in the prescribed manner.

b) whether and what deviations from the budget and its supporting documents have occurred, and in what cases the laws relating to receipts and expenditures of the government, or the purchase and administration of Federal property, or the ordnances and administrative regulations issued under the terms of a special enabling law, have been violated; also in what cases a critism made by the Rechnungshof has not been adequately dealt with.

c) the excess and extra-budgetary expenditures for which the consent of parliament has not yet been obtained, and the amounts which are incorrectly reported in the appropriation account as excess—or extra-budgetary.

3) a report stating the important objections which have resulted from the audit of enterprises having their own legal entity.

4) a report on any administrative defects observed during the audit together with any proposals for their correction.

In carrying out its responsibilities the Rechnungshof obtains appropriate assistance from the federal ministries and from parliament. It may request the authorities to furnish information considered necessary for the audit, or for the control of budgetary administration, or to send in books and documents, or to submit their files with the exception of those of the Federal ministers. It may scrutinize the latter only after obtaining the consent of the minister.[31] The Rechnungshof also receives in regular course many documents and statements essential for the carrying out of its duties:

1) the draft Federal budget and the document after confirmation by the cabinet.

2) the budgets of all institutions and enterprises which draw up their own budgets but in which the government has an interest, or to which it makes grants or subsidies.

3) during the budget preparation stage, certain of the documents supporting the estimates of the individual departments which are submitted to the finance ministry.

4) copies of notifications for the cash offices (Kassenanschlaege) where the accounts on their execution will be submitted for audit.

5) all finance ministry regulations, or agreements, relating to the administration of budgetary authorizations; similarly all Federal ministry general rules on the same subject.

6) all reporting instructions issued to an authority outside the Federal administration where Federal funds are placed at the disposal of such authority.

7) all instructions or general regulations regarding receipts and expenditures, or by means of which changes in the administra-

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[31] This consent is always given.

tive establishments and enterprises would affect the Federal receipts and expenditures

8) all decisions of parliament concerning the submission of accounts.

Action on Rechnungshof decisions and reports. The operating departments and agencies subject to Rechnungshof stricture or objections are required to answer.[32] If not properly met, the objections and criticisms are retained in the final remarks, memorandum or report which goes to parliament. Any administrative or investigatory studies not connected with the final appropriation account go directly to parliament and not through the finance minister.

The duty of studying the audit report upon the final appropriation account, and other Rechnungshof reports, falls upon both houses of parliament (the Bundesrat and Bundestag). A discharge (Entlastung) of the finance minister and the competent financial officials in the government is based upon the audited final account. It sometimes happens that the Rechnungshof must reserve its decision on an individual question or section of the account. In this case the discharge will not cover the question or matter reserved, but will be deferred until the Rechnungshof has withdrawn its reservation, or has subsequently drawn up a comment in its place.

The weakness in the German system of accountability to parliament lies in not having a permanent committee (such as the Public Accounts Committee in the British House of Commons) which is charged with constant study of Rechnungshof recommendations and with holding hearings with the agencies or departments concerned. The comments on the final account go to the Rechnungspruefungsausschuss which is a subcommittee of the lower house budget committee. After discussion in this subcommittee with officials of the court, the report is forwarded to the parliament as a whole. The discharge, however, is not expeditiously handled and the maximum benefit is not derived from the Rechnungshof's labors. The discharge now comes two or three years after the close of the fiscal year. Parliament has in the past sometimes neglected this responsibility particularly during the latter stages of the Weimar Republic as is shown by a Nazi law which granted with one stroke of the pen discharges for six years, 1927–1932 inclusive.

Laender Audit Courts. Before the Third Reich each major Land (state) had an audit court for the audit of its accounts. Some of these Laender audit courts had long and enviable records. During the Nazi period these courts were combined with the regional offices of the Reich court and the state accounting and auditing systems were merged with that of the Reich.

During the four-year period 1946–1949 the audit courts of the old Laender were reconstituted and audit courts for the new Laender established in the three western zones of Germany. The legal basis is found in the state constitutions and audit court laws. Since the Laender follow the Reich Budget Ordinance (RHO) in large measure, there is a high degree of uniformity in the budgetary and auditing practices and procedures throughout Western Germany. The Laender have the power, however, to adopt their own budget ordinances and auditing regulations, or to modify the application of the RHO to their finances, so that there are and will continue to be departures from strict uniformity.

Relations between the Federal and Laender Audit Courts. The Law of 1950 establishing the Federal Rechnungshof reflects the Federal character of the new Republic. The

[32] The prestige of the court is such that its decisions are usually implemented without question by the departments affected. However, follow-up pressure may be necessary to prevent undue delay in implementation.

law is weighted with prescribing the relations between the Federal and the Laender Rechnungshoefe. Provision is made for the following:

1) a joint audit by the Federal court and a Land court wherever the Federal government and a Land government have a joint interest in funds or property.[33]

2) The Federal court and a Land court may, by mutual agreement, transfer auditing functions to one another.

3) upon application and approval of the competent authorities under Land legislation, the Federal court may take over auditing functions on behalf of a Land or legal entity established under public law, or may render expert advice to such entity. Such services are generally on a reimbursable basis.

4) a combined chamber (Vereinigter Senat), composed of members of the Federal audit court and the Laender audit courts, is established to give expert advice on audit questions of fundamental importance and to render decisions on all important questions arising from joint audits or from the transfer of auditing functions between the Federal court and a Land court.[34] For such latter questions the combined chamber consists of an equal number of members of the Federal court and of the Laender courts.

Even prior to the Law of 1950 the new Federal government to a limited extent was using the Laender Rechnungshoefe on a contractual basis to do some of its auditing. A special example was with the Laender audit courts of the French Zone where the Bizonal Audit Court could not audit.[35]

Appraisal. The strength of the Rechnungshof lies in its independence, the prestige of its staff, and its concentration on post auditing and on administrative-economy audits. All of its work has a single purpose—to act as a watchdog of the Treasury, gentle but persuasive. This is not to ascribe perfection to this body. Since the war the court (in all of its three stages, British Zonal, Bizonal and Federal) has been understaffed. Consequently it is not able to live up to its calendar thereby delaying submission of the final appropriation account audit reports. This whole works needs speeding up.[36]

The transitional steps from 1945 to 1950 may not have been necessary but at least were successful because a small group of competent officials provided continuity. The British Zonal Rechnungshof was directed by able officials of the former Reich court. Its work and personnel later became the basis for the Bizonal Rechnungshof, which in turn formed the core of the Bundesrechnungshof.[37]

The method of recruitment of new auditors could be improved. The modern State (and Western Germany is no exception) is today engaged in varied kinds of commercial enterprises, either directly or as a shareholder. The Rechnungshof has done little to recruit specialists for auditing such enterprises. The experience of recruited officials has generally been in government administrative departments. There are not

[33] For example, where Federal funds are administered by Land or communal authorities, or where Federal and Land properties are jointly administered.

[34] The first meeting took place in October 1951. A preliminary regulation governing internal procedure has been issued.

[35] Only time will tell whether Western Germany can adequately staff twelve Rechnungshoefe, and whether the most effective use of governmental accounting talent can be made through the present system, or through a smaller number of audit courts. Aside from the two larger Laender (Bavaria and North Rhine/Westphalia), the Laender courts may tend either in fact or in name to become but regional offices of the Federal court.

[36] When audit reports cover fiscal periods two or three years in the past, their usefulness is greatly reduced.

[37] It is significant that the Federal Law of 1950 establishing the new court specifically provides in Article 5 that the court, in addition to functions prescribed in Article 4, shall, within the scope of Federal administration, "perform such functions as were transferred by virtue of other regulations, statutes or agreements still in force, to the former Audit Court of the German Reich, the Bizonal Audit Court and the Audit Court for the British Zone, or to their respective Presidents."

enough auditing officials with a broad industrial and commercial experience and with the knowledge of the peculiarities and problems of given undertakings who can approach their investigations effectively and protect the government's commercial interests.

The Rechnungshof would probably also benefit in the long and short run from injecting more young blood into its organization. For example, each year the court could recruit a small group of young men between the ages of 20 and 30 as trainees (employees originally, not officials) who would work under experienced officials, would go through a regular course of in-service instruction, and would in due course be posted to various government departments or agencies for stages of about a year so that they would acquire knowledge of the inner workings of particular departments. This recruitment method would quickly bolster the present staff.

Leadership of the Rechnungshof in raising the whole level of governmental accountancy standards will no doubt in time be strengthened. The long isolation of Germany from other countries during the Nazi period probably means isolation from many of the newer developments in governmental accounting.

In conclusion, space permits only a brief summary of the strongest elements in the German institution which find no adequate counterpart in the U. S. General Accounting Office:

1) The respect and cooperation which the Rechnungshof commands. Despite the rapid advances made by the GAO under the present able Comptroller General and the added impetus of the Budget and Accounting Procedures Act of 1950, a comparable status has not yet been attained. Proper recruitment, adequate salaries, sound policies, and a continuance of skillful leadership should in time correct this deficiency.

2) The judicial status and life tenure of 30 top officials sets a high tone for the whole body and makes possible the tradition of independence from the executive branch. It is too much to expect the 15-year terms of the Comptroller General and Assistant Comptroller General to accomplish the same result.

3) The preventive work of the Rechnungshof is strengthened by the opportunity of attendance at budget reviews within the executive branch and at parliamentary hearings.

4) Organization of the Senats and corresponding Departments permits a highly desirable functional specialization of the auditors.

5) The Rechnungshof is well equipped to perform administrative and efficiency audits because of its method of selection of auditors from officials already experienced in the administrative and organizational problems of the ministries. If the General Accounting Office is to expand this aspect of its work, it should recruit similar specialists.

6) The Rechnungshof makes very effective use of its staff by building its audits upon the internal audits already performed within the administrative units.

7) The Rechnungshof's responsibilities extend to checking upon the effectiveness of the investigation work and internal auditing methods of the Federal tax offices, and to sample auditing for the correctness of Federal tax assessments and collections.

8) The degree of cooperation practiced in the German Federation between the state audit courts and the Federal court sets a pattern which might find application in the United States.

Further extension of the GAO into the area of administrative-efficiency studies is a controversial subject. This function has traditionally belonged to the Bureau of the Budget, but administrative analysis and post-auditing are allied functions/ac-

tivities as are administrative analysis and review of budget estimates. The GAO might carry on administrative and economy studies primarily for the Congress; whereas the Budget Bureau continue to work for the President and other administrators in the executive branch. Competition between these two agencies in this area should be a healthy thing. In contrast to the West German government the U. S. Federal government is so tremendous in depth and breadth that there is room for legitimate rivalry and for two agencies attacking the same problem.

Both the German and the U. S. Federal governments have much to learn from the experience of the Public Accounts Committee of the British House of Commons. A serious gap in both governments is the absence within the parliament or Congress of a full-time, well staffed committee for the permanent and uninterrupted business of studying efficiency in government operations.

THE TEACHERS' CLINIC

FRANK S. KAULBACK, JR.

EDITOR'S NOTE: Many of the experienced teachers, as well as some of the new ones have developed devices and techniques for the presentation of certain of the knotty aspects of accounting, and it is felt that such suggestions might well be made available to the other members of the teaching profession through *The Teachers' Clinic*. Accordingly, contributions are hereby invited. Please address all correspondence to Frank S. Kaulback, Jr., School of Commerce, University of Virginia, Charlottesville, Virginia.

EVALUATING STUDENT COMPETENCE[1]

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There is much interest still evidenced by many teachers of accounting on the subject of tests, and specifically, on the advantages and disadvantages of so-called objective tests. It is hoped that this report of some of our experiences with these tests will be of help to those currently working with the problem.

In his article, "Construction of Objective Examinations,"[2] Professor Schmidt did an admirable job in summarizing many of the advantages which are obtained through the use of "objective" tests. A conscientious effort will be made here not to duplicate the cogent arguments he offered, but rather, to examine further some of the points he developed and to elaborate on some aspects of objective testing which seem to be most commonly misunderstood. To do this, an attempt will be made here to clarify terms, and to present illustrative materials taken from our direct experience. Specific illustrations may help dispel the common misconception that these "objective" tests can only be fruitful in fairly narrow circumscribed areas. Further, illustrations and examples will suggest applications of objective methods to areas not usually tested by conventional procedures.

With respect to clarification of terminology, it is unfortunate that the word "objective" has been used to describe this type of testing technique. According to Funk & Wagnall's Standard Dictionary, "the word OBJECTIVE as determining the relationships of the conscious mind to external things has varied in its usage . . . and two meanings have developed." These two meanings are in certain instances more opposite than alike. Of the many subsidiary definitions of objective, one—"having independent existence or authority, apart from our experience or thought"—does not describe much that is considered accounting convention or judgment. Thus, if part of the content which we wish to examine is not "objective," it is confusing to think of the test as being "objective." To state this differently, often we ask questions and seek answers which are judgmental or subjective or conventional. If this is so, then the appellation "objective" to a kind of testing technique is misleading.

From an opposite, and apparently little considered, view, the appellation "objective" well describes ANY testing technique which endeavors to measure the

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[1] I would like to acknowledge my indebtedness to Professor William J. Vatter, of the University of Chicago, whose great interest in this subject provided my opportunity to start this study, and to Professors Benjamin S. Bloom, College Examiner, University of Chicago, and David Krathwold, formerly of the University of Chicago, whose valuable assistance and great patience were of immeasurable value.

[2] THE ACCOUNTING REVIEW, January, 1950.

attainment of previously determined course objectives. In a previous article[3] I attempted to outline the considerations in choosing course objectives. The point to be repeated here is that all course objectives have, or should have, two aspects, the contextual and the behavioral. The failure to emphasize, or even recognize, these behavioral aspects or abilities means that at best a course is only partially (half?) conceived. The attempt to develop an objective examination—i.e., one which tests the attainment of course objectives—forces thinking to these behavioral aspects and helps to clarify them, and therefore tends to improve the course itself.

A "tool" borrowed from the Office of the University Examiner has proved useful to relate content and behavior in the preparation of an examination to measure attainment of the course objectives. This is a two-dimension chart which develops on one axis the content or subject matter to be included and on the other axis the kinds of things or competences expected of the student. The following diagram is an attempt to portray this taxonomical scheme. It should be noted that the content or subject matter axis presents no problem since this is the one which is traditionally developed. The ability axis poses real difficulty. To establish specific behavioral goals in terms of realizable objectives calls for a real analysis of methods, and a real study of the problem of education in the given course. We have worked with this problem at some length; although we do not feel that definite results have been established, we think there is much to gain by such attempts to establish course-goals. The behavioral-abilities appearing in the diagram serve only to illustrate our approach to the problem; it does not represent the solution.

After this "cross-hatch" or "Table of Specifications" is prepared for the course or courses to be examined, questions are

[3] "A Reconsideration of the Course Objectives of Elementary Accounting," THE ACCOUNTING REVIEW, July, 1950, pp. 322–26.

BEHAVIORAL AXIS

CONTEXTUAL AXIS

Abilities— OBJECTIVES FOR {THE STUDENT IS ABLE TO} *Content* THE STUDENT EXERCISES ABILITIES ON {COURSE XXX.}	*Ability A* 1. Recall information or edge. 2. Recognize information which falls into certain given contexts.	*Ability B* Apply accounting knowledge and techniques in solving business problems similar to those discussed in class instruction.	*Ability C* Apply accounting knowledge and techniques to solving new or unusual business problems.	*Ability D* Contrast various accounting theories with respect to their implications for a given business problem.
SUBJECT I.				
SUBJECT II				
SUBJECT III.				
SUBJECT MATTER INCLUDED IN TRAYNOR MANUFACTURING PROBLEM WHICH APPEARS LATER IN THIS PAPER.	The student must separate the costs into conventional classes of direct and indirect and recognize that different cost behaviors exist for the given data.	The student determines the effect of the proposed order on the scheduled costs. For some costs the change in % of plant capacity must be ascertained.	Some of the scheduled costs are "new" to the student, or more complex than those previously acted upon; such as the elevator costs or machinery services.	The student is confronted here with a "fixed" cost which is relevant, & a direct variable cost which is irrelevant.

prepared which test for specific abilities on certain subjects. When these questions are plotted in the appropriate "cell" (say, by question number) a sight inspection will reveal the extent or adequacy of coverage of the course-objective.

The kind of questions that we have prepared are "recognition" problems; the student is given a question or statement and is asked to recognize from the given alternatives the answer, or the most correct response. Because of the confusions raised by the use of the emotional word "objective," we will describe these questions here by calling them recognition problems.

The use of "recognition" test techniques usually allows for more extensive sampling of content in a given period of time than would otherwise be true. In addition, problems which test behavioral abilities, or things other than technical content, can be developed readily. The problem of weighting is resolved by including items in proportion to the importance of the content, as this may be determined, either by the amount of time allotted in the course to particular topics, or by the degree of importance that instructors attach to the various course-objectives.

This pattern of thinking—the use of a table of specifications and the recognition technique, has been followed at the School of Business of the University of Chicago, since our first experiment with this testing technique in the autumn of 1949. Since that time our Comprehensive Examination: Accounting I has consisted of 175 to 200 recognition type problems and has been given to all regular students in the School. This Examination is used to verify the degree of competence acquired in the required contextual, logical, and analytical phases of Accounting. The results obtained from the use of examinations of this type have been such as to enlist the wholehearted suppport of the instructional staff, although some had entered the experiment with serious reservations.

Student reaction to these tests has been highly favorable; first, because of the adequate coverage afforded, and second, because less time is used in activity other than answering questions than is typically true of conventional examinations. As to the first; often an examination situation arouses certain emotions and creates certain anxieties in the student. Some are stimulated by this heightened emotion and perhaps perform at a higher level because of it. Others, and probably the poorer students, are handicapped. The knowledge that the examination consists of, say, 200 independent "questions" dispels some of the fears that are associated with the sink-or-swim, one or two problem type examination. Probably, too, the knowledge that the "correct" answer is usually included among the alternatives heightens student enthusiasm, although our own experience has been that guessing is of little avail. and that only properly qualified students attain passing levels.

The restricting of student time to answering questions may or may not be an advantage, depending on the educational objectives of the course or courses being tested. I think it is true in our School that we are little concerned with the beginning student's facility for preparing worksheets, supporting schedules, formal statements, and the like. These are a means to the end of understanding certain relationships and ideas rather than the end itself. And as much time as possible should be provided for measuring the attainment of the educational objectives. If a course is concerned with (1) developing the analytic and interpretive powers of the student, (2) strengthening his ability to relate and judge, and (3) contributing to the understanding of certain accounting techniques and conventions; then it would seem that a test situation which gave the student

a finished Balance Sheet and Income Statement with questions concerning them would be a more successful measuring tool for the objectives stated above, than the test situation which would have the student prepare these statements from given primary data or trial balances.

In one of our examinations we reproduced the Consolidated Statement of Financial Position of Standard Oil Company (New Jersey), December 31, 1949–1948. We gave the following instructions:

"These questions refer to the balance sheets given for the Standard Oil Company. You are to use these statements exclusively in selecting your responses. Any information which you have of this company, the industry, or the general business picture should not influence your answer. For the following questions you may accept these financial statements as being correctly prepared and in proper order."

"For the following statements:
BLACKEN ANSWER SPACE

A—If the data alone afford *sufficient* evidence for you to regard the statement as *true without reservation.*

B—if the data afford *some* evidence for you to regard the statement as *probably true,* but additional information is needed to eliminate any reservations.

C—if the data afford *sufficient* evidence for you to regard the statement as *false without reservation.*

D—if the data afford *some* evidence for you to regard the statement as *probably false,* but additional information is needed to eliminate any reservations.

E—if the data is *insufficient* for you to conclude anything as to the probable *truth* or *falsity* of the statement."

A few of the question asked about these statements follow:

1. 1949 prices of property, plant, and equipment items were double the level of 1939; therefore, the real value of property, plant, and equipment at December 31, 1949, is \$4,171,443,452.
2. Stocks of companies owned in Europe and North Africa would, if liquidated at December 31, 1949 have brought approximately \$220,393,056.
3. Since prices of crude oil have risen, the physical inventory of crude oil was smaller at December 31, 1949, than it was at December 31, 1948.
4. The cost of additions to property, plant, and equipment made in 1949 was \$227,046,443.
5. Taxable net income for the year 1949 was less than that for the year 1948. (The income tax rates remained constant through the two years.)
6. Total cost of materials and supplies used in 1949 exceeded the purchases of those items for the year.
7. The increase in cash at December 31, 1949, as compared to that at December 31, 1948, resulted from earnings reinvested and employed in the business by Standard Oil Company (New Jersey) Parent Company.
8. The company charges receivables to bad debts expense as they actually prove uncollectible.
9. The increase during the year 1949 in the amount at which marketable securities are carried was due in part to market appreciation.
10. The total equities of the company at December 31, 1949, amounted to \$2,726,659,412.

Whether or not these illustrations are "good" or universally usable is not the issue posited here; the question to be asked is this—which is the more rote, recall, mechanical activity (the frequent accusation made against recognition type problems): preparation of financial statements from a furnished trial balance, or answering questions about furnished financial statements?

And if the examination is for *all* students of business which competence, preparation of statements or evaluation of statements, is basically desired?

Alternatively, a problem which would test similar competences, and abilities, might present financial statements dissimilar from conventional ones and ask questions about the dissimilarity.

Another type of student competence which usually is expected is an understanding of the accounting vocabulary and

account classifications. The behavior to be tested would be the ability to identify terms and categorize into traditional accounting classes; below is illustrated a problem which does this.

In this series of pairs of items, the member on the left lists five THINGS, four of which are related. The second member of each pair lists five CATEGORIES to which the four related things might belong.

FOR EACH PAIR OF GROUPINGS

(a) Blacken the answer space which corresponds to the *one* thing which does *not* belong to the same *category* as the other four.

(b) Blacken the answer space which corresponds to the letter of the one category which most precisely explains the relationship of the four remining things in the first list.

THINGS

1.
   a. Patents
   b. Franchises
   c. Copyrights
   d. Trademarks
   e. Goodwill

3.
   a. Replacements
   b. Improvements
   c. Betterments
   d. Rehabilitation
   e. Maintenance

5.
   a. Sale of goods at a price higher than all cost assignable to them
   b. Borrowing from a bank
   c. Sale of additional common stock
   d. Purchase of supplies on credit
   e. Collection of accounts receivables

CATEGORIES

2.
   a. Intangible Assets.
   b. Items closely attached to the enterprise in its entirety.
   c. Monopolistic privileges conferred by Governmental or other authority.
   d. Items which depend upon the business as a going concern.
   e. Items whose value is determined by abnormal earnings.

4.
   a. Expenses of owning property.
   b. Expenditure properly charged to the Income Account.
   c. Fixed Assets.
   d. Expenditures which affect the valuation of the Plant.
   e. Expenditures always evidenced by a cash payment.

6.
   a. Transactions which increase total assets.
   b. Transactions which decrease total assets.
   c. Transactions which increase and decrease total assets.
   d. Transactions which increase total liabilities.
   e. Transactions which decrease total liabilities.

Problems of this type can be easily made more or less complex by changing the distractors and increasing or decreasing the fineness of discrimination.

It is frequently suggested that all participating members of a capitalistic society should have some understanding of accounting and business reports. The vehicles of communication of business activities for many members are newspaper or magazine articles. Frequently (I would like to say always) these articles are written by non-accountants or non-businessmen, and represent a "translation" of a technical report for a lay audience. If the newspaper report is meant for a wider consumption than the original statement then it follows that less rather than more competence should be needed to assimilate the information or ideas developed. To test the competence of our own students in this kind of understanding we frequently give them a reprint of a "story" and ask them questions about it. An article and some questions follow.

The following restates an article which appeared in the January 12, 1949, issue of the *Chicago Sun-Times:*

"The First National Bank of Chicago has hidden "interior reserves" of about $45,000,000 the chairman indicated at the annual stockholders' meeting. The chairman quickly reeled off a partial account of the bank's interior reserves when a small stocholder commented "that means the book values of the bank's stock is about $250 a share." The annual report indicates a book value of $190.

The chairman said the bank has followed a policy of transferring to interior reserves earnings on its government bonds which exceeded an average of $1\frac{1}{4}\%$. In this way it has built up a reserve for bad debts of about $20,000,000, exclusive of its reserves for possible declines in bond prices.

The bank has been depreciating its building at a rate exceeding that permitted by the Collector of Internal Revenue. Such excess depreciation has built up another interior reserve of about $8,000,000.

The chairman mentioned "stocks of $8,000,000 not on the books" in his recital of reserves, and he made reference to a hidden reserve for insurance of $1,355,000.

The stockholder mentioned above charged that the bank was making too much money for the stockholders and urged that it should "share the wealth," especially with the depositors . . . . The chairman pointed out that the depositor is given a stake in the earnings through the additions to capital, creating greater safety for his funds."

The following questions refer to or are related to the above quotation. They should be answered by indicating the most correct or the best response among the alternatives.

1. The existence of hidden reserves affects the percentage of return to net worth by:
   a. Overstating the percentage of the return to net worth
   b. Understating the percentage of the return to net worth
   c. Does not affect percentage of the rteurn to net worth
2. Which of the following is *not* likely to have been meant by the chairman when he pointed out that the depositor is given a stake in earnings through the additions to capital, creating greater safety for his funds.
   a. The larger a bank is, the less likely it is to fail.
   b. The retention of earnings provides a larger "cushion" to protect depositors.
   c. The existence of hidden reserves reduces the amount of earnings distributed as dividends.
   d. The amount of excess reserves is kept in cash to afford greater protection.
   e. None of the above.
3. The most logical interpretation of "stocks of $8,000,000 not on the books" assuming that all transactions are properly recorded would be that:
   a. The stocks are held as collateral for loans.
   b. This amount is the difference between market price and original cost.
   c. The bank purposefully omitted recording the acquisition of the stocks.
   d. The stocks are stocks of a subsidiary company.
   e. There is no logical interpretation of this statement.
4. The existence of about $8,000,000 interior reserve resulting from the depreciation taken on the building indicates:
   a. That the rate permitted by the Collector of Internal Revenue is too low.
   b. That the rate permitted by the Collector of Internal Revenue is too high.
   c. That the rate permitted by the Collector of of Internal Revenue is not appropriate to this type of building.
   d. That the rate permitted by the Collector is more correct than the rate taken by the bank.
   e. That the hidden reserve seems to be measured by the difference between the rate permitted by the Collector and the rate used by the bank.
5. The hidden reserve for insurance can arise by:
   a. Charging the cost of a three year insurance contract against the year of acquisition.
   b. Crediting the insurance expense account with any dividends received from a mutual insurance company.
   c. Ignoring the insurance problem.
   d. Charging an excessive amount to operations when "self-insurance" is employed.
   e. Using co-insurance.
6. Which of the following practices do *not* give rise to hidden or secret reserves?
   a. Overstatement of bad debts.
   b. Setting up excessive depreciation or depletion.
   c. Omission of accrued receivables and revenues.
   d. Charging additions and improvements to maintenance.
   e. Capitalizing maintenance and repair charges.

The above illustrations have been presented here in an attempt to show that many types of student abilities can be tested and several types of competences

evaluated through the use of recognition types of problems. Another aspect to consider lies in the increased flexibility afforded when a conventional problem is recast into many recognition types of questions. Following is such an adaptation. The original problem was the "Rheta Rose Manufacturing Company" which appeared in the Uniform Certified Public Accountant Examination given in May of 1949.[1]

"The Traynor Manufacturing Company produces an item (which is packed in an individual container that has household uses) which it sells direct to consumers under its own brand at $12.00 per unit, which is a long established price. Due to a general decline in business activity, sales are currently being made at the rate of 5,000 units per month which is only 40% of the normal productive capacity of the plant of the Company."

"An offer to purchase 5,000 units a month has been received by the Company from a mail order firm. The mail order firm has offered $7.00 per unit without containers on the basis of a one year contract. The items would be sold under the mail order firm's label and would be crated and shipped at its (the mail order company's) direction and expense."

The Traynor Company management does not expect an improvement in business within the next year nor do they fear that the sale of items to the mail order company will reduce their other volume of sales. However, they do not believe they can accept the order because they are now losing money at their present price of $12.00.

The treasurer calls you in and gives you the data and cost schedules which appear below:

1. Overtime premiums were earned by the stores personnel during the taking of the annual physical inventory.

2. The machinery used is highly specialized, and is rented on a production basis. The lease calls for a payment of $.91 per finished unit with maintenance and repair the obligation of the lessee. The machines require adjustment and lubrication after every ten units produced.

3. Operations at 32% of capacity usually required the services of about 50 persons in the manufacturing process.

4. The manufacturing part of the building was laid out in such a fashion that part of it could be closed off (no heat, light, or sweeping) when operations were at 80% of normal productive capacity. An additional area could be closed off when operations were at 30% of normal productive capacity.

5. The charge for power is composed of two elements. One element is the demand charge which is based on the *maximum* requirement in any one month of the previous calendar year. The other is a charge for present current consumption.

6. To produce the units for the mail order company, a fixture costing $1,000 must be purchased. This fixture will be used only for mail order units, and cannot be used for other units.

7. The Company has a bank of three elevators; each elevator when operating requires an attendant. The account-elevator operating costs include all costs associated with the elevator services. Typically one elevator is used up to 33% capacity, 2 elevators from 34% to 66%, and 3 elevators for in excess of 66% capacity.

Required: For the following fifteen items, with respect to the data, and in terms of this particular decision, BLACKEN ANSWER SPACE

1—if the cost is direct.
2—if the cost is indirect.
3—if the cost is variable.
4—if the cost is a mixed cost; part fixed and part variable.
5—if the cost is a step-cost (semi-variable) but fixed in this case.
6—if the cost is a step-cost (semi-variable) but variable in this case.
7—if the cost is fixed in any event over the whole range.
8—if the cost is fixed over part, variable for rest of range.
9—if the cost is relevant to this decision.
10—if the cost is irrelevant to this decision.

NOTE: INDICATE ALL THE CORRECT ANSWERS FOR EACH COST: THIS MEANS THAT YOU WILL HAVE MORE THAN ONE RESPONSE FOR EACH ITEM. IN THE SCORING OF THIS PROBLEM THE NUMBER OF WRONG ANSWERS WILL BE SUBTRACTED FROM THE NUMBER OF RIGHT ANSWERS.

[1] Reprinted in the ACCOUNTING REVIEW, October, 1949 and *The Journal of Accountancy*, December, 1949.

Schedule of costs for April, 1949; Production 4,000 units

Labor traceable to units of product	$9,900.00
Superintendent's salary	1,000.00
Power purchases	560.00
Raw material going into product	4,000.00
Heating	348.00
Indirect labor	2,240.00
Cost of individual unit containers	1,200.00
Overtime premiums	400.00
Machinery services	3,640.00
Repairs and Maintenance, machinery	480.00
Payroll taxes, Actual	541.60
Depreciation and property taxes	2,020.20
Elevator operating costs	506.00
Apportioned personnel department (Costs apportioned on basis of man hours)	685.50
Cost of special fixture if mail order proposal is accepted	$1,000.00

Since the underlying purpose of the original problem seems to be the determination of cost behavior, it was our opinion that the revised version better suited our educational objectives. First, because it recognized six kinds of cost behavior instead of two without making the unrealistic assumption of perfect dichotomy of cost; and second, because it did not aim at AN answer to the data in its entirety.

Other problem adaptations have been used which have proven successful for our purposes and lead us to believe that almost any type of content can be effectively examined through the use of problems of this type.

It has been our finding that tests composed of recognition forms of questions can measure student attainment, both in terms of behaviors or skills, and in terms of content. These behavioral aspects have been slighted in the past and much work remains in this area. It should be pointed out that these tests have been given to students who have also taken course examinations of the more conventional form. We have had good though not precise correlation between the grades in the courses and those of the comprehensive examination. In the instances where the correlation is slight or inverse, the comprehensive examination has served as a diagnostic tool in determining the reason for the failure of correlation. However, this diagnostic use has had such little application that it can only be mentioned here in passing as an advantage obtained from the use of this test technique.

It seems unfair, if not untrue, to advocate these tests on the ground of a saving in faculty time. Clearly, there is a substantial saving in grading time, whether hand or machine scored, but any such saving, and usually more, is invested in the preparation of the questions. If it appears that these kinds of questions can do a better job of examining for us, that alone should be sufficient reason to use them.

Finally, I think the reason that many are still suspicious of this kind of testing technique stems from the frequently voiced objection that it is only useful for measuring recall or recognition competences. The objection, however, probably results from the fact that up to now the bulk of the recognition problems prepared have been prepared for varied context but just for this one kind of behavior or ability. It is hoped that this paper has demonstrated the possibility of constructing tests which go beyond this ability of recall into the uncharted competences we intuitively know to exist in our subject matter.

COMPARING THE GROSS AND NET PRICE METHODS

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Accounting instruction must convey to students as many progressive ideas as possible. Simultaneously, time should be taken to show traditional practices more likely to be found in business. Thus overemphasis of new theories which limits or excludes discussion of older business procedures defrauds the student. He may be bewildered when the accounting methods which confront him in his first job are not what he has been led to expect. Unbalanced emphasis in the other direction is even less desirable for the new accountant will not have had a chance to develop in college the background for the creative thinking which can make possible his advancement to executive responsibility.

A striking example of the necessity for a balanced treatment of accounting ideas is in the teaching of the net and gross price methods of recording purchases and sales. Fairly impartial presentation of these opposing methods can be achieved in a fifty-minute class period. The simple comparative illustration shown here has been effective in presenting comprehensively both methods despite the writer's admitted preference for the net price method.

Professor Paton has stated succinctly the relative merits of the net and gross price procedures: "Net prices are substantially on a cash basis and therefore represent effective costs. It is the net price that the vendor generally expects to collect and the buyer expects to pay. Failure to accept all discounts offered, indeed, is evidence of careless management or precarious financial condition. There is no excuse for the practice—unfortunately still common—of treating gross prices as genuine costs and purchase discounts as an item of income. Realized income cannot arise through the operation of buying."[1] One can agree with these statements yet feel that by the time students are ready to consider net and gross price procedures they are also ready to form some sort of personal opinion regarding them. With the approach shown here a majority of my students have decided that they favor the net price method. In the main, this appears to be a result of their own evaluation. Concurrently they have gained a familiarity with both the gross and net price methods which should enable them to understand either procedure in practice.

The teaching device upon which this discussion is focussed is shown in Figure 1. The circumstances illustrated are perhaps slightly more complicated than are absolutely necessary for elementary comparison of the two discount viewpoints In the given illustration the following situation is assumed:

a. The goods involved are billed at a gross price of $1,000 with terms of 3/5, 2/10, n/30.
b. Payment for the goods is to be recorded in the books of both the purchaser and the seller under each of the methods:
   i. When settlement is made within 5 days after the basic transaction.
   ii. When settlement is made within 6–10 days after the basic transaction.
   iii. When settlement is made within 11–30 days after the basic transaction.

A less complicated presentation will result from assuming terms of 2/10, n/30 only. However this simpler illustration fails to highlight the intricacies involved in recording settlement under the net price procedure of less than the full amount of the billing but more than the smallest settlement available to the purchaser.

[1] W. A. Paton, ***Advanced Accounting***. (New York: The Macmillan Company, 1941), p. 118.

Figure 1

Blackboard Comparison of Gross and Net Price Methods of Recording Purchases and Sales

	Gross price method		*Net price method*	
Purchaser's books	*Dr.*	*Cr.*	*Dr.*	*Cr.*
The purchase:				
Purchases	$1,000		$ 970	
Accounts payable		$1,000		$ 970
Payment within 5 days:				
Accounts payable	1,000		970	
Purchases discount revenue		30		—
Bank		970		970
Payment within 6–10 days:				
Accounts payable	1,000		970	
Loss from lapsed purchases discount	—		10	
Purchases discount revenue		20		—
Bank		980		980
Payment within 11–30 days:				
Accounts payable	1,000		970	
Loss from lapsed purchases discount	—		30	
Bank		1,000		1,000
Seller's books				
The sale:				
Accounts receivable	$1,000		970	
Sales		$1,000		$ 970
Collection within 5 days:				
Bank	970		970	
Sales discount cost	30		—	
Accounts receivable		1,000		970
Collection within 6–10 days:				
Bank	980		980	
Sales discount cost	20		—	
Gain from lapsed sales discount		—		10
Accounts receivable		1,000		970
Collection within 11–30 days:				
Bank	1,000		1,000	
Gain from lapsed sales discount		—		30
Accounts receivable		1,000		970

The order of development of the illustration on the blackboard will vary with instructors and may be influenced by the nature of students' questions as they arise. Barring necessary on-the-spot modification to answer specific questions, one of two general plans may be followed:

a. Complete each line horizontally before proceeding to the next line by illustrating:
   i. The sale entry followed by the purchase entry using the gross price method.
   ii. The sale entry followed by the purchase entry using the net price method.
   iii. Payment by the purchaser followed by collection by the seller under the gross price method when the best possible terms are taken advantage of by the purchaser.
   iv. Payment by the purchaser followed by collection by the seller under the net price method in the same circumstances.
   v. Similar payment and collection for the remaining set of conditions.

b. Go through the entire set of basic and alternative settlement transactions first using the gross price method, then repeating the same transactions using the net price method. This may be accomplished in one of two ways:
   i. By illustrating all of the seller's entries before showing all of the purchaser's entries, or vice versa.
   ii. By completing each line horizontally before going on to the following line.

Especially when procedure b. is followed, the instructor may drive home the points of difference between the pricing methods by not entering the additional account titles required for the net price scheme until actually needed. In both of the general plans listed above, presentation of the gross method first reflects this writer's

bias. Switching the general order to show the gross price procedure last might be utilized by an instructor who prefers to emphasize that procedure.

A necessary part of the illustration of these procedures in the suggested "package" form is to point out to students that recording by the gross (or net) method in one set of books is not predicated upon the particular method used in the other. Although this fact will be obvious to the instructor, because of the nature of the illustration the unwary student may be led astray.

There is a confusion in terminology which may be brought out in classroom discussion of this subject: The credit term "net/30" really means that settlement of the *gross* amount will be necessary if the purchaser does not take advantage of the smallest (net) payment available to him. Terms comparable to those shown in the illustrative example really should be stated as "3/5, 2/10/ *g*/30"!

There is an opportunity also to bring into the lecture the relationship of the going-concern concept in accounting to each of the opposing systems of recording purchases and sales. This concept tends to support a preference for the net price method. For from the viewpoint of the purchaser, if a going concern, the decision to purchase will be predicated upon the lowest cost at which goods can be acquired. And the seller as a going concern will give preference to buyers with the highest degree of liquidity in order to maximize utilization of his own working capital.

TEACHING BUDGETING AND CONTROLLERSHIP*

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There were about 50 members in attendance, many of whom are giving courses in Budgeting, and a few also giving courses in Controllership or Managerial Accounting.

Considerable discussion centered on the the purpose of a course in budgetary control. Opinions varied, but there seemed to be a consensus, (1) that such a course should teach students how to prepare a business budget, and (2) that students should learn how a budget is to be used by management, in establishing controls at all levels of management, how current operations are measured, and how the variations from the budget are analyzed and reported to management.

Much consideration was also given to the possible content of such a course. It was brought out that a shortage of good textual material still exists. Some of the teachers of budgeting have collected problem material, which consists in most cases of short problems, covering a wide variety of businesses. A few of the teachers present suggested the need for a complete case for classroom use. Representation from the University of Illinois, Illinois Institute of Technology, and George Washington University reported not only that they are using complete cases in the classroom, but are also requiring students to visit businesses, that have fairly good budgets in operation.

Discussion was also directed to certain problems involved in presenting courses in controllership—or managerial account-

* Report of Discussion at Roundtable at the American Accounting Association meeting, Denver, September 6, 1951.

ing. In this broader field, there also exists a greater need for textual material. In many of the Universities represented, no such special courses have been introduced. but quite a number present at the round table, indicated that their schools are considering giving such a course, and some have already outlined its content. A few schools offer such a course now.

Professor Benninger (University of Missouri) stated that, in his opinion, controllership includes the whole of accounting, statistics, office management and budgeting. Others pointed out a great need exists for some special instruction in this field of coordination, both at the graduate and undergraduate levels. The highly specialized duties of the controller—mainly in the field of collecting and interpreting data for use by management—should be presented to students of business—in a special course designed for this purpose, rather than expecting students to get hold of this technique from a study of various management and accounting courses. It seemed to be the consensus that a course in controllership—should be separate and distinct from CPA preparation courses or other special kinds of accounting courses, and that the controller's work in coordinating operations be clearly defined and described. The hope was expressed that suitable material for such a course would soon be developed, with problems that can be used in the classroom.

It was generally agreed that both budgeting and controllership courses belong essentially in the field of management, but much of what has been produced and is now available has been developed by accountants and teachers of accounting. Perhaps some controller, who has come into his work by the accounting route, may soon feel the urge to produce the much needed textual material in controllership and budgeting for classroom use.

PROFESSIONAL EXAMINATIONS

A Department for Students of Accounting

HENRY T. CHAMBERLAIN

THE FOLLOWING problems were prepared by the Board of Examiners of the American Institute of Accountants and were presented as the second half of the May, 1952, C.P.A. examinations in accounting practice. The candidates were required to solve all problems. The time allowed was four and a half hours. The weights assigned were: problem 1, 15 points; problem 2, 10 points; problem 3, 25 points.

A suggested time schedule is given below:

Problem 1	75 Minutes
Problem 2	40 Minutes
Problem 3	120 Minutes

No. 1

The following items relate to federal income taxes. An answer sheet has been provided for your convenience. No reasons need be given to support your answers. Your grade will be based on the number of correct answers you submit.

a. The following statements are to be answered by deciding whether the statement is generally true or false. If the statement is true, enter (a) on your answer sheet; if the statement is false, enter (b) on your answer sheet.

1. Husband and wife live together, husband entirely supporting spouse. Wife dies during taxable year. Husband may not file a joint return and claim an exemption for his wife since she was not alive for the entire taxable year. (a) True, (b) False.
2. Taxpayer files a joint return. He supports his wife's cousin. He may not claim his wife's cousin as a dependent. (a) True, (b) False.
3. T purchased annuity in 1948, paying $60,000 by terms of which he is to receive $5,000 annually, commencing in 1951. T will be required to report gross income of $3,200 for 1951 in respect to this annuity. (a) True, (b) False.
4. T is paid part of his 1951 salary in 50 shares of X Corporation stock which has a par value of $100 a share. At date of receipt the stock is worth $60 per share. T must report $5,000 as income in respect to the X Corporation stock. (a) True, (b) False.
5. It is mandatory for the taxpayer to amortize the premium paid on wholly tax-exempt municipal bonds. (a) True, (b) False.
6. A non-business bad debt is treated as a short-term capital loss in the year it becomes worthless. (a) True, (b) False.
7. Taxpayer, an individual who is on the accrual basis, signs a pledge in 1951 to contribute $500 in 1952 to the American Red Cross. This transaction constitutes an allowable deduction for the year 1951. (a) True, (b) False.
8. If taxpayer sells securities at a profit and within 30 days thereafter acquires an equivalent amount of substantially identical securities, no gain is recognized. (a) True, (b) False.
9. Hotel expenses incurred by an employed salesman while away from home on business are deductible for the purpose of determining adjusted gross income. (a) True, (b) False.
10. Taxpayer, a married man with two dependents, receives $4,800 in salary, subject to withholding, and $800 in dividends. He is required to file a declaration of estimated tax. (a) True, (b) False.
11. Taxpayer furnished 80% of the support of his sister who is married and who filed a joint return with her husband. Taxpayer may not claim his sister as a dependent. (a) True, (b) False.
12. X owns securities which yield $200 per year in taxable interest. He has directed that the interest be paid to his son. The interest income is taxable to X. (a) True, (b) False.

b. The following are to be answered by indicating the letter which identifies the correct answer for each situation:

1. T, a calendar-year taxpayer who keeps his records on the accrual basis, receives on November 1, 1951, $3,600 covering rent for a three-year period, commencing January 1, 1952, on a store which he owns. For the year 1951, T should report as gross income, with respect to the rent received: (a) 0, (b) $200, (c) $1,200, (d) $3,600, (e) some other amount.
2. X, an infant 14 years old, earns $400 during the taxable year by selling newspapers. This constitutes his gross income for the year for federal income tax purposes.
   (a) X is required to file a tax return.
   (b) X need not file a tax return but his father, Y, must include on his return the $400 earned by X.
   (c) X need not file a tax return, and his father need not include on his return the $400 earned by X.

3. An unmarried taxpayer, age 32, with two dependents, has adjusted gross income of $4,000. During the current taxable year, he incurred, but did not pay, hospital expenses of $350. He paid incidental medical expenses of $25. What amount is deductible as medical expenses? (a) $175, (b) 0, (c) $150, (d) $375, (e) answer other than indicated.
4. On July 1, 1949, Jones leased land and buildings to the ABC Company. The company made improvements amounting to $2,000 on the buildings. Jones had purchased the land and buildings for $20,000 on Janaury 1, 1949, and was depreciating the buildings at 5% each year. On July 1, 1951, Jones repossessed the property which at that time had a fair market value of $23,000. What gain must Jones report on repossession? (a) $5,500, (b) $3,500, (c) $2,000, (d) 0, (e) some other amount.

c. Jackson, who owns and operates a business as an individual proprietor, had the following transactions during the taxable year. For each transaction you are to state (a) the amount of recognized gain or loss, and (b) the tax basis of the new asset.
1. He exchanged a machine having an adjusted basis of $4,000 for a similar machine worth $2,200 and received $1,200 in cash.
2. He exchanged a truck having an adjusted basis of $2,200 for a truck having a fair market value of $1,800 and received $700 cash on the trade.
3. He exchanged a pleasure car for which he had paid $1,500 and gave $600 cash for a new pleasure car listed at $1,900. His old car had a cash sale value of $1,400.
4. He had one machine destroyed by fire. He collected $10,500 insurance and immediately purchased a similar machine for $12,000. The machine destroyed had an adjusted basis of $9,600.
5. He sold for $4,500 a machine which had an adjusted basis of $7,500 and immediately purchased a similar machine, using the proceeds of the sale and $7,500 additional cash.

d. Indicate whether or not the following items received during 1951 are includible in gross income of recipient for the year 1951 by the use of the following letters: (a) Yes, (b) No.
1. Amount received from an employer as severance pay.
2. Pension of $1,500 paid voluntarily by a company to a retired employee. (Employee has contributed nothing toward this pension.)
3. Dividends received by the insured on a life insurance policy.
4. Amount received as a result of a suit for personal injuries.
5. Compensation for personal injuries sustained under workmen's compensation acts.
6. Unemployment insurance benefits paid by a state.
7. $800 insurance premiums paid by corporation on life of T, its president, where T is permitted to name the beneficiary.
8. T is insolvent both prior to and subsequent to forgiveness of a $5,000 debt which T owed L.
9. $1,000 market value, at date of receipt, of exempt municipal securities received by T as dividend on X Company stock which he owned.
10. Supper money received by T and deducted as "Miscellaneous Expenses" in the employer's tax return.
11. Reward of $1,000 received by T for prevention of a bank robbery.
12. Interest of $50 received on a Postal Savings Account which he had deposited in February of 1940.

No. 2

The Metal Products Co. manufactures three different models of a single product. From the following data you are to prepare a schedule, supported by computations, showing the sales quantity and sales dollar figure for each model necessary to enable the company to cover its non-variable costs.

Model Number	*Annual Sales Budget (Units)*	*Budgeted Unit Sales Price*	*Budgeted Sales Allowances for a Year*
100	30,000	$15.00	$1,260
200	16,000	18.00	480
300	10,000	25.00	410

1952 ESTIMATES

Model Number	*Quantity Budgeted For Production*	*Over-all Estimated Cost per Unit*		
		Total	*Variable Cost*	*Non-Variable Cost*
100	30,500	$15.072	$ 9.871	$5.201
200	15,000	17.335	10.250	7.085
300	10,000	23.756	15.436	8.320

No. 3

M and N form a partnership in July 1951 to sell a product for which they have an exclusive franchise covering 20 counties of a state. In order to fully exploit the market,

they establish a branch in one town. This branch is operated by a manager. The partnership did not employ a bookkeeper since N was expected to keep such records as were needed. However, after operating until October 31, 1951, the partners agreed that N did not have sufficient time available to keep the necessary records. Jones and Johnson were engaged to correct the present records and prepare financial statements as of October 31 after which the business expects to employ a bookkeeper.

There are three models of the product which are handled by the firm. Sales price and cost are as follows:

	Sales Price	Cost to M & N
Model X	$290	$174
Model Y	245	147
Model Z	195	117

Salesmen are employed on a commission basis. Advances are made to several of the salesmen which are to be offset against future commissions. The firm had to finance some of its inventory by borrowing from a local bank against warehouse receipts. Installment notes accepted in settlement of sales are discounted at their bank on a recourse basis. Interest and finance charges are included in the face amount of the notes.

The branch was opened August 1. Shipments of the product are made direct from the manufacturer to the branch, but billed to the home office. The home office bills the branch at 20% above cost for such merchandise. The branch is to have a working fund of $2,500 operated on an imprest basis. Cash received from branch sales are deposited in a separate bank account subject to withdrawal only by one of the partners. Weekly reports are sent in by the branch manager.

The books set up include a Cash Receipts Book, a Cash Disbursement Book and a General Journal in addition to the General Ledger. No postings have been made in the ledger. Therefore, the accountant summarized the entries in the cashbooks and journal and prepared the following summaries prior to posting to ledger accounts:

CASH RECEIPTS BOOK SUMMARY

	Debit	Credit
Cash—Home office bank	$56,397	
Cash—Branch bank	6,875	$ 5,000
Installment notes		17,439
		27,780
Home office sales		10,700
Branch		6,875
Interest and finance charges	1,744	
	2,778	

CASH DISBURSEMENT BOOK SUMMARY

Cash—Home office bank		$78,356
Purchases	$17,910	
Branch	10,206	
Bank loans	25,000	
Interest on loans	240	
Sundry Columns		
Petty cash—Branch	2,500	
Partners' drawings	3,775	
Sales commissions	5,105	
Warehouse and delivery	1,414	
Trucks	5,994	
Taxes withheld		410
Miscellaneous selling expense	3,069	
General and administrative expense	3,553	

GENERAL JOURNAL SUMMARY

	Debit	Credit
Cash	$30,000	
Branch	22,392	
M's Investment		$15,000
N's Investment		15,000
Purchases		18,660
Profit on branch		3,732

Investigation of the transactions revealed the following additional information:

1. The purchases entered in the cashbook included only the cash paid from the bank account. Bank loans were obtained for the remaining cost of purchases but not recorded on the books. Purchases during the period were as follows:

Model	*For Home Office*		*Branch*	
	No.	*Amount*	*No.*	*Amount*
X	50	$ 8,700	60	$10,440
Y	100	14,700	40	5,880
Z	50	5,850	20	2,340

A general journal entry was made charging the branch with the purchases at 20% above cost. This 20% was credited to Profit on Branch.

2. Home office sales were:

Model X—42 units for $12,180
Model Y—70 units for $17,150
Model Z —36 units for $ 7,020

The $10,700 of cash received from home office sales was entered in the cashbook. Installment notes having a face amount of $28,520 which were accepted for $25,650 of home office sales were not recorded when received. Proceeds of discounting installment notes taken by the home office and by the branch were recorded in the cashbook. Face amount of $27,780 of home office notes were sold to the bank at a discount of $2,778. The remaining notes discounted were received from the branch.

3. Depreciation on the trucks should be $333 for the period with $130 of that amount chargeable to branch expense for truck used by branch.
4. Sales commissions earned by home office salesmen amounted ot $4,350. Only $4,100 of this amount was subject to offset against cash advances made of $5,105, leaving $250 due to certain salesmen.
5. Unpaid expenses of the office are as follows:

Delivery expense	$ 96
Miscellaneous selling expense	212
General expense	90

6. Information obtained from the branch shows the following accounts:

	Debit	*Credit*
Petty cash fund	$ 2,500	
Purchases	22,392	$ 1,044
Sales		22,550
Sales commission expense	2,955	
Installment notes	17,439	17,439
Interest and finance income		1,764
Deposits for home office	6,875	
Remittances from home office		12,706
Home office	18,483	22,392
Rent of office and equipment	540	
Rent of warehouse	300	
Delivery expense	375	
Taxes withheld		431
Miscellaneous selling expense	5,416	
General and administrative expense	1,051	

Other than the inventory account and the asset and liability accounts included above, it is the policy of the firm to have only income and expense accounts included in the branch accounts.

The inventory at the end of the month at billing price to branch was $5,112. The credit to purchases was for 5 of Model X returned to the factory for credit because they were defective and, therefore, charged to home office. All installment notes have been transferred to the home office. The Remittances from Home Office include the original cash fund and all expenses recorded. However, the actual cash in the imprest fund is only $2,037 because of unreimbursed expenses of $87 sales commissions, $302 of office salaries and $74 of miscellaneous general expense. Unpaid advertising of $185 has not been recorded. Inventory on hand at branch consists of 10 of Model X, 6 of Model Y and 14 of Model Z.

Required:

a. Prepare a worksheet for the Home Office accounts, with columns for Transactions, Corrections and Adjustments, Profit and Loss, and Balance-Sheet.
b. Prepare a worksheet for the Branch accounts, with columns for Trial Balance, Corrections and Adjustments, Profit and Loss, and Balance-Sheet.
c. Prepare a reconciliation of the reciprocal accounts on the books of the Home Office and of the Branch, ***setting forth the inter-office transactions.***

Solution to Problem 1

(A)

1. (b) False
2. (a) True
3. (b) False
4. (b) False
5. (a) True
6. (a) True
7. (b) False
8. (b) False
9. (a) True
10. (a) True
11. (a) True
12. (a) True

(B)

1. (d) \$3,600.00
2. (c)
3. (b) 0
4. (d) 0

(C)

1. (a) No Gain
   (b) \$2,800.00
2. (a) \$300.00
   (b) \$1,800.00
3. (a) No Gain
   (b) \$2,000.00
4. (a) No Gain
   (b) \$11,100.00
5. (a) Loss of \$3,000.00
   (b) \$12,000.00

(D)

1. (a) Yes
2. (a) Yes
3. (b) No
4. (b) No
5. (b) No
6. (b) No
7. (a) Yes
8. (b) No
9. (a) Yes
10. (b) No
11. (a) Yes
12. (b) No

Solution to Problem 2

THE METAL PRODUCTS COMPANY
COMPUTATION OF SALES REQUIRED TO COVER ALL COSTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Model No.	*Sales Price*	*Allowance*	*Net Sales Price*	*Variable Costs*	*Available for Non-Variable Costs*	*Total Non-Variable Costs*	*Unit Sales Required to Cover Costs*	*Sales Required at Established Price per Unit*
100	\$15.00	\$.042	\$14.958	\$ 9.871	\$5.087	\$158,630.50	31,184	\$467,760.00
200	18.00	.03	17.97	10.25	7.72	106,275.00	13,766	247,788.00
300	25.00	.041	24.959	15.436	9.523	83,200.00	8,737	218,425.00

Explanation

(1) Total non-variable cost is determined by multiplying the budgeted non-variable cost per unit by the estimated 1952 production.
(2) The unit sales required to cover costs is determined by dividing column 7 by column 6.

Solution to Problem 3

M and N
WORKING PAPERS—ADJUSTMENT OF HOME OFFICE ACCOUNTS
October 31, 1951

	Transactions		*Adjustments*		*Profit and Loss*		*Balance Sheet*	
	Dr.	*Cr.*	*Dr.*	*Cr.*	*Dr.*	*Cr.*	*Dr.*	*Cr.*
Cash—Home office bank	(1) \$ 56,397 (3) 30,000	(2) \$ 78,356					\$ 8,041	
Cash—Branch bank	(1) 6,875	(1) 5,000					1,875	
Installment notes receivable		(1) 17,439 (1) 27,780	(5) \$28,520 (6) 17,439				740	
Home office sales		(1) 10,700		(5) \$25,650		\$36,350		
Branch current account	(2) 10,206 (2) 2,500 (3) 22,392	(1) 6,875 (3) 3,732	(7) 130	(6) 17,439 (10) 870			6,312	
Interest and finance charges—expense	(1) 1,744 (1) 2,778				\$ 4,522			
Purchases (Cost of goods sold)	(2) 17,910	(3) 18,660	(4) 30,000	(11) 7,440	21,810			
Bank loans	(2) 25,000			(4) 30,000				\$ 5,000
Interest on loans	(2) 240				240			
Partners' drawings	(2) 3,775						3,775	
Sales commissions	(2) 5,105			(8) 755	4,350			
Warehouse and delivery expense	(2) 1,414		(9) 96 (7) 203		1,713			
Trucks	(2) 5,994						5,994	
Taxes withheld		(2) 410						410
Miscellaneous selling expenses	(2) 3,069		(9) 212		3,281			
General and administrative expense	(2) 3,553		(9) 90		3,643			
M's Investment		(3) 15,000						15,000
N's Investment		(3) 15,000						15,000
Interest and finance charges—income				(5) 2,870		2,870		
Reserve for depreciation				(7) 333				333
Accounts payable				(8) 250 (9) 398				648
Advances to salesmen			(8) 1,005				1,005	
Due from supplier			(10) 870				870	
Inventory			(11) 7,440				7,440	
					\$39,559	\$39,220		
Net loss						339	339	
	\$198,952	\$198,952	\$86,005	\$86,005	\$39,559	\$39,559	\$36,391	\$36,391

Solution to Problem 3

KEY TO ADJUSTMENTS OF HOME OFFICE ACCOUNTS

(1) To record summary of cash receipts record.
(2) To record summary of cash disbursements record.
(3) To record general journal summary.
(4) To adjust the accounts for unrecorded purchases and unrecorded bank loans.
(5) To adjust the accounts for unrecorded sales.
(6) To record notes received from the branch.
(7) To record depreciation on trucks.
(8) To adjust sales commission account.
(9) To record unpaid expenses.
(10) To record amount due from supplier for returned goods.
(11) To set up ending inventory:

Model X— 8 Units @ $174.00	$1,392.00
Model Y—30 Units @ 147.00	4,410.00
Model Z—14 Units @ 117.00	1,638.00
	$7,440.00

M and N
WORKING PAPERS—ADJUSTMENT OF BRANCH ACCOUNTS
October 31, 1951

	Transactions		*Adjustments*		*Profit and Loss*		*Balance Sheet*	
	Dr.	*Cr.*	*Dr.*	*Cr.*	*Dr.*	*Cr.*	*Dr.*	*Cr.*
Petty cash fund	$ 2,500			(3) $ 463			$ 2,037	
Purchases (Cost of goods sold)	22,392	$ 1,044		(6) 5,112	$16,236			
Sales		22,550				$22,550		
Commissions	2,955		(3) $ 87		3,042			
Installment notes	17,439	17,439						
Interest and finance income		1,764				1,764		
Deposits for home office	6,875			(2) 6,875				
Remittances from home office		12,706	(1) 12,706					
Home office current account	18,483	22,392	(2) 6,875	(1) 12,706 (5) 130				$ 9,870
Rent of office and equipment	540				540			
Rent of warehouse	300				300			
Delivery expense	375		(5) 130		505			
Taxes withheld		431						431
Miscellaneous selling expense	5,416		(4) 185		5,601			
General and administrative expense	1,051		(3) 376		1,427			
Accounts payable				(4) 185				185
Inventory			(6) 5,112				5,112	
					$27,651	$24,314		
Net loss						3,337	3,337	
	$78,326	$78,326	$25,471	$25,471	$27,651	$27,651	$10,486	$10,486

KEY TO ADJUSTMENTS OF BRANCH ACCOUNTS

(1) To close remittance to branch current account.
(2) To close deposits to home office bank account to the home office current account.
(3) To record disbursements from petty cash fund.
(4) To set up liability for advertising expenditure.
(5) To charge branch for depreciation on trucks.
(6) To set up ending inventory.

M and N
RECONCILIATION OF CURRENT ACCOUNTS
October 31, 1951

Home Office Books				
Branch current account:				
Petty cash advance		$ 2,500.00		
Branch expenses paid by home office		10,206.00		
Purchases for branch (net):				
Billing price	$21,348.00			
Profit included in billing price	3,558.00	17,790.00		
Depreciation on trucks		130.00	$30,626.00	
Remittances from branch		$ 6,875.00		
Installment notes received from branch		17,439.00	24,314.00	
Adjusted balance				$6,312.00
Branch Books				
Home office current account:				
Petty cash advance		$ 2,500.00		
Expenses paid by home office		10,206.00		
Purchases (at billing price) net		21,348.00		
Depreciation on trucks		130.00	$34,184.00	
Installment notes sent to home office		$17,439.00		
Remittances to home office		6,875.00	$24,314.00	
Adjusted balance				$9,870.00
Difference—profit on purchases credited by branch				$3,558.00

ASSOCIATION NOTES

E. Burl Austin

CANADA

Queens University, Kingston, Ontario:

R. G. H. Smails has become Director of the School of Commerce. The former director, W. A. Mackintosh, has become Principal of the University.

ILLINOIS

Southern Illinois University:

Guy Trump has been made Chairman of the Department of Business Administration to succeed J. W. Scott, retired.

De Paul University:

Anthony Potenziana resigned in February to accept a position in industry in New Mexico.

Earl Christmas resigned in June to join the staff of Wolf and Company, CPA's, as a specialist in wage and salary stabilization.

Si Wynn has been named Educational Director of the Chicago Chapter, NACA.

KANSAS

University of Wichita:

William D. Tuxbury has resigned to enter public accounting in Dallas. Replacing Tuxbury is H. C. Krueger as an assistant professor.

Francis D. Jabara represented the University at the April meeting in Denver of the American Association of Collegiate Schools of Business.

William F. Crum has recently delivered speeches before the Wichita Chapter of NACA and the First Regional Meeting of the Association of Clinic Managers.

Francis Jabara has been elected and William F. Crum reelected to the Board of Directors of the Wichita Chapter, NACA.

MASSACHUSETTS

Clark University:

George E. Hargest is currently serving as Vice-President of the Worcester Chapter, NACA.

MICHIGAN

Michigan State College:

Bruce Futhey returned in September to his duties as associate professor of accounting from a two-year period as audit supervisor for the Atomic Energy Commission.

University of Detroit:

Sheldon W. McGraw, partner of Kinsworthy, McGraw and Wright, Certified Public Accountants, is teaching a course in controllership this fall.

NEW JERSEY

Rutgers University:

William J. von Minden has been elected Vice-President of the New Jersey Society of CPA's.

NEW YORK

Brooklyn College:

Nathan Schmukler is serving as instructor after recently receiving his Ph.D. in accounting from New York University.

Long Island University:

During the spring a Forum of Accounting was held at the University with speakers and subjects as follows: Raymond G. Ankers, "Opportunities in Public and Private Accounting"; James T. Powers, "Accounting Opportunities in Government Employment"; Leo Schloss, "Graduate Studies and Their Contribution to Advancement in Accounting." Schloss also recently addressed the high school graduates of James Madison High School in Brooklyn on the subject of a career in accounting.

TEXAS

University of Houston:

Howard M. Daniels has been elevated to the rank of professor of accounting.

Paul Z. Brochstein has been promoted to associate professor.

BOOK REVIEWS

ARTHUR M. CANNON, *Editor*

Accounting and Auditing

The Accountancy of Changing Price Levels. Institute of Cost and Works Accountants. (London: Gee & Company, 1952. Pp. 129. 15s. Abridged version in pamphlet form Pp. 25. 2s 6d.)

The ever growing collection of economic literature which deals with the disturbing impact wrought by changes in the level and structure of prices stands as a monument to one of the most outstanding failures in recorded history: the failure of money as a standard of value. That the existence of an unstable monetary unit impairs the usefulness of accounting information is one facet of the total edifice on which everyone seems agreed. No corresponding consensus is apparent, however, as to the exact nature of the impairment, the advisability of altering accounting concepts and procedures to correct for it, or the means by which such a revision should be accomplished. In the U. S. the recent recommendations of the American Accounting Association's Committee on Accounting Concepts and Standards, and the Study Group on Business Income sponsored by the American Institute of Accountants, although at odds in several important respects, evidence a basic agreement on the proposition that any adjustment should be made in terms of an index of the general value of money.

This work, the result of a study by the Research and Technical Committee of the British Institute of Cost and Works Accountants, rejects this approach for reasons which are never clearly specified. The study is divided into three parts: (1) A discussion of the effect of price changes on business operations and accounting results, (2) A statement of "the principles which govern accounting for the effects of changing price levels" followed by a series of specific recommendations, and (3) A description of the means by which the Committee's proposals might be implemented.

Although the term "price levels" appears in the title and throughout the discussion, it is apparent that the Committee is primarily concerned with changes in specific prices rather than with changes in the value of money *per se*. This contention would perhaps be contested by those who framed the report; it is based, however, on the implications which may be derived from the Committee's proposals.

The Committee concludes that present financial and operating statements fail to reflect the impact of changing price levels in two major respects: (1) a distribution of accounting profits may involve a distribution of "real" capital; (2) the measurement of business transactions in terms of money does not reflect accurately the results of business operations in terms of "real" values. The term "real" is not defined in the report, except insofar as a footnote states that by this is meant the "economic conception." Unfortunately economists have only slightly less difficulty with the concept than accountants; therefore the meaning must be inferred from the textual discussion.

To correct the first deficiency, the Committee advocates a "recovery" concept of "real capital maintenance"; they state that real capital is maintained when the proceeds of the sale of goods and services are sufficient to replace the goods consumed in production, satisfy the claims of the taxing authorities, and remunerate adequately those who provide the business with capital. In order to determine when this has occurred it is necessary to compute "real profits." The Committee recommends that these concepts be implemented by computing periodic profit net of a charge against revenues in an amount sufficient to provide for the current cost of replacing the materials, supplies and the services of tangible fixed assets which have been consumed during the period. In addition any failure on the part of such cumulative charges to "provide for the full current replacement cost" of such assets should be "made good by an appropriation of profit." Such charges will be offset by credits to an Excess Replacement Cost Reserve to appear in the Reserve and Surplus section of the balance sheet.

The possibility that cumulative charges based on current replacement costs may prove excessive if prices should fall prior to actual replacement is covered by a warning (in an appendix) that "if and when conditions of falling price levels apply, these reserves will be drawn upon to increase money profits." Whether this refers only to the excess of currently expiring actual monetary costs over current replacement costs, or to the entire cumulative excess provision is not specified; the illustrations are all drawn under conditions of rising prices.

The concepts of real profits and real capital implied by these procedures relate to a rather special use of the term "real." It is not changes in the significance of money as a standard of value which are being accounted for, but changes in its significance as purchasing power over particular tangible assets. One of the basic objections to such a concept of capital maintenance is that it focuses attention on the maintenance of the aggregate quantity of inputs rather than on the aggregate quantity and quality of outputs; with the continuing development of more productive equipment and new and improved products it is clearly the latter which is of greater significance in determining whether the integrity of the firm's capital has been maintained.

With respect to the second deficiency of present accounting procedures, namely, the failure to account for the results of business operations in terms of comparable values, the Committee recommends two solutions: (1) "To provide information on which future

action can be determined, the money values should be converted into money values of the latest date in relation to which the information is prepared." (2) To provide an account of "stewardship in terms of real values and ensure the maximum comparability of accounting data, the money values should be converted into money values of a previous point in time," the appropriate time being that at which the "largest subscription of proprietorship capital was made."

In implementing the first proposal, each item in the financial statements is to be converted to "current money values." Cash, receivables, and current liabilities are to be reported at their book values. Investments and long term debts are to be valued at their currently ruling market prices. Fixed assets and materials are to be valued at their present replacement cost, adjusted in the case of depreciable assets to allow for cumulative amortization. Capital stock is to be valued at its market price, or if shares are not quoted, on the basis of a share price index for companies in the same industry. The excess of assets over liabilities and capital stock so determined is the total currently valued surplus, which may be subdivided into reserves, unappropriated profits, and a residual gain or loss on the conversion of profit and loss and balance sheet items. Revenue and expense amounts should likewise be converted to current amounts on the basis of appropriate indices to indicate the current dollar amounts which would be realized from the same volume of sales, and the current dollar outlays which would have to be made to acquire the same amounts of goods and services which have expired during the period.

The second proposal is to be implemented in a similar manner by converting the book values of each amount on the financial statements to their equivalent as of the selected base date. In preparing these statements all items are subject to conversion: receivables and trade debts by applying to the book values the price index of the goods and services to which they relate as of the base date; cash on the basis of its purchasing power over the commodities and services which the business buys as determined by the index used to convert trade debts. All other amounts would be converted similarly, the general principle involved being an attempt to determine what their amounts would be in terms of prices ruling at the base date. A residual gain or loss from conversion of both profit and loss items and balance sheet items produces an equality of assets and equities.

Aside from the obvious difficulty of obtaining appropriate and comparable price indexes, the reviewer admits to an inability to grasp the significance of an attempt to neutralize all price changes. Such a process inevitably obscures the very significant gains and losses which arise from the ownership of assets which have increased or decreased in value relative to all other goods in the economy. The assumption that all price changes result from an unstable monetary unit is scarcely more tenable than the assumption that money is of constant significance over time.

Whether one agrees or disagrees with the Committee's proposals, this work represents a worthwhile addition to the body of literature in this area. Its prime contribution lies in the carefully prepared discussion of the impact of price changes on accounting data and the illustrative material in support thereof. Its basic significance stems from the fact that an important body of accountants has taken a positive position on a highly controversial problem. Its general weakness, in the opinion of this reviewer, lies in the fact that it never quite succeeds in coming to grips with the fundamental assumptions on which the proposals are based.

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Selected Readings in Accounting and Auditing. Edited by Mary E. Murphy. (New York: Prentice-Hall, Inc., 1952. Pp. x, 431. $3.95.)

News of an "anthology" of accounting articles is good news to teachers of accounting. It is a wholesome break from the familiar stream of textbooks for students and handbooks for the "trade." This book is one of the first of its kind, and Mary Murphy has staked out for herself a reasonable task that is commendably done.

Some seven sections divide the book. The lengths of the different sections—and hence the emphasis given—are understandably uneven. Just how the space is rationed can be seen from the table following:

Section	*% of Book*	*No. of Excerpts*
I. Science of Accountancy	12	6
II. History of Auditing	20	11
III. Financial Statements	8	3
IV. Consolidated Statements	8	5
V. Costs, Budgets, Governmental Accounting and War Contracts	8	5
VI. "Great Issues" Under Debate	30	10
VII. Look Into the Future	10	5
Bibliography (Approx. 250 References)	4	—
	100%	45

The book is composed of recent writings. Nearly all of the excerpts are from articles that were published in the last ten years, and many of the latter are less than five years old. The writings are limited to English-speaking authors. English and British Commonwealth writers are represented in Sections III (1), IV (2), VI (5), and VII (1). The rest of the pieces are by American writers. In Section VI, the editor gives generous space to the writings of a new but active British group that writes for the periodical "Accounting Research," published in England.

Pronouncements of professional bodies are found in but a few places. The American Accounting Association statement on principles, 1948 edition, is reproduced in full. So is a statement on consolidated accounts by a special committee of the English Institute of Chartered Accountants. In releasing this "statement," the Council of the Institute acknowledged the value of the com-

mittee's work but withheld official approval "in view of the absence of any long-established practice on manv of the points involved." This is a good reminder that consolidated reports are still largely an American phenomenon. There is also a statement of internal auditor's responsibilities, by The Institute of Internal Auditors.

How may this book be used in college classes? It would fit in well with a course on "accounting history," or "accounting theory," but few schools offer such courses. Perhaps the best possibility is to use the book as required supplementary reading in a combination of the standard courses such as those in auditing, intermediate accounting, and advanced accounting.

Are future books of readings likely to follow the pattern of Mary Murphy's book? A book of excerpts—such as this anthology—possesses the big advantage of capturing the full flavor of original writings. When attempted in the field of accounting, however, the anthology idea is apt to meet an even bigger disadvantage. In selecting a piece, there is the ever-present danger of scooping up irrelevent passages along with relevent ones, and commonplace observations along with those worth quoting. This cannot help but reduce a book's value to the reader.

Book of readings in accounting undoubtedly have an important future, but they are likely to come from the pens of authors rather than editors. One interesting experiment would be to re-write sources selected in the form of digests, making full acknowledgment and citing source so as to enable the reader to find and consult any of the writings which he may wish to read in the original. Such a digest could easily attain several times the coverage of points and writers, in a given length of book, which is possible in a straight collection of excerpts. In Miss Murphy's book, it took some 4C0 pages to present 45 pieces, but the interested reader is asked to go to original sources and pursue some 250 references if he would enrich his mind further on the topics included in the book.

A second approach is to try, as Stephen Gilman tried, to keep the scooping of original writings in much smaller scale—using the paragraph instead of the relatively long excerpt. In Gilman's book, "Accounting Concepts of Profit," the author wove into any particular discussion in hand, immediately relevent observations of others. This called for pin-pointing the quotations, which works only and in the degree of the care and discrimination exercised in finding and selecting the paragraphs to be quoted. The design of this type of book is clear enough: to offer the reader a great array of original and distinctive writings of others, as woven into the author's own presentation. The author of that kind of a book gives each subject-matter taken up a definite direction and a definite analytical content. At the same time, by careful and liberal citing of important milestones of original thinking by others, he can materially raise the poignancy of the presentation as a whole. Stephen Gilman's well-known effort is as much a trail blazer in that approach as Mary Murphy's book is as an anthology.

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Classification in Accounting. A. A. Fitzgerald and L. A. Schumer. (Sydney, Australia: Butterworth & Co. (Australia) Ltd., 1952; Toronto: Butterworth & Co. (Canada) Ltd. Pp. x, 261. $6.50.)

The main purpose of *Classification in Accounting*, according to the authors, "... is to examine the many bases upon which classification or division of accounting data may be made, the suitability of different bases for different purposes, and the respects in which different bases are, on the one hand, alternative or competitive and, on the other hand, supplementary or complementary" (p. 16). Without doubt, the purpose is achieved.

The book is based on a series of magazine articles in *The Australian Accountant*, *Accounting Research* and elsewhere. It is, nevertheless, well integrated, concise, and without digressions although opportunities are numerous. The book is an example of rational thought as well as an accounting book.

Financial statements are classified (1) as activity and position statements, (2) as comprehensive and partial statements, (3) by classes of parties interested, and (4) by kinds of accounting units involved. The relationship of each kind of accounting unit (business enterprises, non profit-making associations, trusts and governments) to each point is discussed throughout most of the book.

The bases of accounting records discussed are the complete accounting basis and the financial transactions basis. The latter is further classified as accrual, cash and partial accrual basis. The similarities and differences between each basis are described in terms of the effect upon accounting results for successive fiscal periods.

"Funds," meaning total resources (a near obsolete definition in America), are classified by source (capital, creditors and revenue) and use (consumed in earning income, unconsumed assets, and distributed to proprietors). The authors predict, as Americans also have for about fifty years, that the funds statement will become a major financial statement.

In Chapters 5 to 8 the major subclasses of proprietorship and liabilities, assets, income or revenue, and costs and expenses are further classified according to fifteen bases such as source of funds, accounting period, administrative responsibility, liquidity, tangibility, normality, controllability, and taxability.

In Chapter 6 Fitzgerald and Schumer trace the lack of uniformity in both theory and practice in the United Kingdom, Australia, and America arising from uncertainty of the true basis of division of current and fixed assets. They say that the definitions have traces of at least four bases of division—purpose use, liquidity, degree of permanence, and legal significance. They dislike the remedy of settling upon one of the four bases as a single test because it would result in unorthodox definitions of current and fixed assets. A second remedy would be to combine two or more bases into a single test and only the assets that meet the combined test would be classified as current assets.

Fitzgerald and Schumer object to the use of the term "current" as the antithesis of "fixed" assets because unless, in terms of the test applied, one is the antithesis of the other in all respects, then "current" and "fixed" will not necessarily be exhaustive of the whole class.

The terms "current" and "non-current" are preferable because the divisions would be mutually exclusive and, together, exhaustive. They prefer Gilman's classification of assets into three major divisions—cash and claims to cash, unconsumed resources, and uncollected income or debt owing to an enterprise.

Fitzgerald and Schumer review American definitions of "cost" and "expense" which indicate that ". . . expense is part of cost, and cost is part of expense—a paradox which exemplifies the sorry state into which accounting terminology has drifted" (p. 130). For convenience they adopt the term "negative income" to include both costs (direct and indirect production) and expenses (selling, administrative, and financial).

Chapter 9 summarizes the preceding chapters and describes how a double entry bookkeeping mechanism may be designed to provide the desired classifications and divisions of accounting data. The volume of transactions of modern business can be fitted into the orthodox accounting plan (which indicates its versatility) and physically handled because of the development of composite journal entries and subdivisions of the journal, mechanical bookkeeping devices, and controlling accounts and ledgers.

Chapter 10 analyzes the arguments against orthodox accounting's failure to show real income. Fitzgerald and Schumer speculate why the fall in purchasing power of money after 1940 resulted in more controversy than did a similar change after 1914. Solutions to the problem of money income versus real income are classified as proposals for revised records, revised financial statements without revision of records, and other plans. Fitzgerald and Schumer discuss the opinions of American writers and conclude that general purpose accounting should be continued on the money-outlay interpretation of cost. The index number method (Sweeney's technique) is described as the most attractive proposal for the changes that are advocated. Their desire for general acceptance and uniform application of any change is conditioned first upon the revision of methods of presentation of accounting statements. Thereafter, they say, accountants should generally accept the new standards and then persuade boards of directors to adopt them for company reports. One wonders when such a highly controversial proposal would be accepted in view of the fact that use of the same plan for acceptance of far less controversial ideas has encountered strong obstacles—at least in America.

Social (national income) accounting is discussed in Chapter 11 as an example of an expanded accounting unit.

The lengthy appendix contains eight charts of accounts with comments upon them for such diverse types of units as a department store, manufacturing company, service business, hospital, local government, and the Australian Broadcasting Commission.

Classification in Accounting is a well written book that would be useful in American universities as basic reading for a course in accounting systems. It would probably be valuable as parallel reading for certain parts of an advanced theory course.

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Survey of Accounting. Leonard W. Ascher. (New York: Harper and Brothers, 1952. Pp. 717. $5.00.)

This elementary accounting text is divided into six parts:

Part I. Introduction, designed to distinguish between bookkeeping art and accounting science and to bring out the basic data with which each deals.

Part II. The Fundamental Records—Double Entry Bookkeeping, designed to set forth the major classes of accounts and to demonstrate the phases making up the accounting cycle.

Part III. Accounting for Different Types of Business Enterprise, designed to show the differences in accounting for sole proprietorships, partnerships and corporations.

Part IV. Accounting Theory, concerned with the problems of balance sheet classification and valuation, the determination of income, and the influence of changing price levels.

Part V. Special Aspects of Accounting, consisting of chapters on accounting for manufacturing enterprises, consolidated statements, auditing, and tax and payroll accounting.

Part VI. Conclusion, concerned with the analysis of financial statements and the evaluation of the validity and utility of accounting.

Questions and problems in sufficient number appear at the end of each chapter. The problems for the most part are relatively short, a feature which is satisfactory in a survey course because of the greater coverage afforded. No laboratory sets accompany the text, a fact which may deter its use.

The reviewer finds that the text is weakest in its treatment of the accounting cycle (Parts II and III) and strongest in its coverage of accounting theory (Part IV).

The exposition of the accounting cycle and the bookkeeping aspects thereof are weak in several respects. An example is the limited columnarization of the journals illustrated. Another example is the use of the cost of sales account as an intermediate closing account, and the closing out of expense offsets and revenue offsets into the related expense and revenue accounts before final closing into the profit and loss account. An allied shortcoming is the closing out of the nominal accounts into profit and loss by a separate entry for each account instead of by compound entries for the accounts combined. More perturbing than these weaknesses is the author's failure to present the reasoning underlying many of the illustrative entries presented.

The scope of treatment of the topics appears adequate except for that on accounting for manufacturing enterprises in Part V. Noticeably lacking is a discussion on the statement of change in working capital, i.e., the statement of funds.

Arrayed against the deficiencies is the commendable treatment of accounting theory. The reviewer finds particularly stimulating Chapter 22 entitled "Accounting Theory and Principles," and Chapters 31 and 32 entitled, respectively, "The Problem of Changing Price Levels," and "Alternative Methods for Correcting the

Effect of Changing Prices." The author does an excellent job of presenting and evaluating possible solutions to the problem of the changing purchasing power of the dollar.

This text can be used most effectively in a survey course for those students who do not intend to major in accounting. The text furnishes such a student with a broad picture which points out the limitations, difficulties, and pitfalls of accounting; the framework of principles, conventions, and assumptions within which accounting functions; and the detailed procedures and devices employed to produce the finished financial statements.

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Executive Accounting. Part One: Internal Business Control. Sixth Edition. Hadley Editorial Staff. (New York: McGraw-Hill Book Company, 1952. Pp. xx, 258. $3.50.)

The authors have done a thorough job of writing to aid the executive who has little or no training in accounting. One who already has some knowledge of accounting might be tempted to skim over some of the explanations because of the elementary style and easily interpreted illustrations.

For the student, each step of the accounting cycle has a chapter of explanation with a carefully planned approach to the next step. The illustrations are plentiful but not overdone. About one-fifth of the text is devoted to problems, each chapter incorporating its proportionate share. There are short problems to set the mental picture of the chapter material. There are practice sets to clarify the connections between the various steps in the business cycle.

The chapters covering cash receipts and disbursements have detailed explanations of internal control for both large and small businesses. The illustrations:

(1) Point out procedures for the small business man who prefers a daily report of all transactions.
(2) Provide for the business large enough to have reasonable divi ion of labor, with all records eventually centering in the general ledger.

Most of the text follows this two-fold method in explanations.

The two chapters on cash are followed by a chapter entitled "Banking Practices and Transactions." To the average executive who has to plan carefully to meet the monthly bills and take available discounts, this should elucidate the banker's view-point on the checking account. The chapter is a masterpiece of elementary explanation and illustration.

Following are ten pages devoted to financial statements, as well as explanations of the ratios most commonly used for statement analysis. There is just enough to show the possibilities to a beginner, but not enough to be confusing. The final chapter, dealing with the various forms of ownership structure, gives enough information on the advantages and disadvantages of each form to convince the executive or student that there is much more to learn.

Perhaps the most advanced chapter from the accounting point of view is "Payroll Accounting," a carefully planned, well illustrated twenty pages concerning the various federal and state taxes. Whether one is a student working part-time and drawing a weekly check, or an accountant in charge of a large payroll the only difference discernible is the size of the figures. The members of the Hadley staff who organized this chapter are to be commended.

This text could meet the requirements of the college student with other than a Business major, who has need for one course in accounting and business.

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First Year in Accounting—Fundamentals. First Year in Accounting—Principles. Fourth Edition. David Himmelblau. (New York: Ronald Press Co., 1952. Pp. 267, 302. $3.50 each volume.)

These two volumes are designed for the first year in accounting. Each is loose-leaf bound and convenient to handle, especially on the arm of a desk chair; each is divided into fifteen chapters.

Volume one is designed as a text for beginning students interested in the application of accounting to business. The complete bookkeeping-accounting cycle is introduced in the first four chapters in a simple, well illustrated and concise manner. Then come merchandise accounts and records, cash, cash discounts and records, notes, adjusting and closing entries, fiancial statements, closing, post closing, and location of errors. Chapter eleven is devoted to the partnership form of business. Controlling accounts are presented in chapter twelve, with a very adequate chapter on "Inventories of a Trading Business." Chapter fourteen is devoted to accounting for non-trading organizations, an unusual feature which gives to non-business students and especially students not intending to pursue accounting beyond the first semester, a concrete application of accounting not usually achieved in a first semester accounting course. The last chapter of the volume consists of essay, multiple choice, and true-false questions.

The author develops the subject from the first chapter rapidly. Sentences are usually short, clear and concise; there are ample illustrations, diagrams and charts. Where more than one method of presentation of a subject is acceptable the author illustrates each method. The text is surprisingly up to date in accounting terminology and thinking as demonstrated in the chapter on inventories. Each chapter usually contains a brief resume of previous chapters and practically all chapters contain one or more short summaries.

An outstanding feature of this text is the splendid selection, content, arrangement and adequacy of the questions and problems for home and class exercise. The class exercises are problems with blank forms in the text following each chapter; these are convenient.

There is a practice set, also loose leaf, beginning with chapter two. As the text is developed, the journal

and ledger subdivisions are made by the student. The practice set assignments should keep the student alert to the development of the subject and in schools where laboratories are required, should add greatly to good laboratory and class coordination. The instructions on practice set material are complete but not verbose.

The reviewer believes the author has done an excellent job of presenting the practical application of accounting to business, by a composite of accounting fundamentals and bookkeeping techniques which students can apply by the end of one semester.

The second volume of the set "is a continuation of Fundamentals of Accounting, and follows the same general method of presentation. Taken together, they represent a full year's study of accounting, and are designed to give the student a knowledge of the fundamentals of the subject which will be useful whether he engages in business or follows a professional or public career. This volume is designed to acquaint the student with accounting as it applies to the corporation and large business activities.

Again excellent problems and questions for home assignment and class exercises, and a coordinated practice set, are included. The practice set starts with the organization of the corporation as a going concern, develops through the trading and manufacturing activities.

The first chapter describes the corporate form of organization and accounting in the usual manner, but in the minimum of words, leaving the individual instructor the opportunity to supplement with his own state laws. The voucher system, with good description of the controlling phase, is well presented and illustrated.

The bookkeeping procedures applicable to a large business are stressed. The matching of expense to income is well handled in chapter four under the headings. of prorating expenditures, depreciation and bad debts. Cost accounting has but one chapter devoted to it, but for a first year course this seems adequate when joined with the very good practice set and a chapter on "Inventories of a Manufacturing Business." The usual materials on surplus, investments, bond issues, with attendant sinking fund, and sinking fund reserve are included. The final chapter is "Control Through Accounts" and though short is well organized and presented.

The texts contain no chapter or material on preparation of payrolls, with the attendant problem of withholding of income taxes, social security taxes, union dues or other items; no mention is made of unemployment or federal and state income taxes. There are many teachers who feel, and the reviewer is one of these, that since such taxes are subject to constant change it may be better to have each instructor supply this material currently. However a loose leaf supplement, revised annually, would add materially to the text as first year students should certainly be familiar with the above subjects.

It is the opinion of the reviewer that as a whole the coverage of subject material is good; the arrangement is expertly done; and assignments, questions, problems and practice sets are very good. This text and attendant materials are definitely teachable and among the very best available.

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Asset Accounting. William A. Paton and William A. Paton, Jr. (New York: The Macmillan Company, 1952. Pp. vii, 549. $5.)

Whenever the dynamic William A. Paton writes or speaks, the accounting fraternity is interested. Now a father and son team has been formed to carry on. It is difficult, if not impossible, to determine the contribution of the son, for the writing is replete with the familiar pungent expressions and the uninhibited thinking of the father.

In 1941 Mr. Paton published *Advanced Accounting*, including the entire balance sheet and a number of related topics. Since that time accounting theory and practice have been subject to severe strains. The determination of income and the valuation and analysis of balance sheet components have been complicated by by developments within our economic system. Theory must be re-examined, and every effort must be made to provide reliable and adequate information for the use of management. Under these circumstances the logical decision for the authors was to select that portion of the earlier edition relating to the asset side of the balance sheet and to re-work and expand the material in the light of more recent developments. In doing this they were of necessity guided by the all-important consideration, the determination of income. Further, the equity side of the balance sheet could not be ignored and required extensive consideration in connection with the related asset and income problems. The title *Asset Accounting* is used in a broad sense. It is probable that other portions of the earlier book will be included in a second volume later.

The authors are convinced that one of the major problems facing accountants has grown out of the severe and sustained price movements of recent years. They believe that it is time to re-examine the "cost approach" and do something about it in accounting practice. It is stated in the preface that "the problems of valuation as they relate to accounting are given systematic and straightforward attention, without apology, including the difficulties resulting from the change in value of the dollar." It is to their credit that they have done just that. Probably the greatest contribution to accounting literature made by this book is the thorough and searching inquiry into valuation and other price level problems.

In the chapters relating to inventories a particularly interesting study is made of the effect of price level changes. The authors demonstrate that the view that declining prices give rise to unrecoverable inventory costs should not be applied indiscriminately. They decry the practice of "carrying forward inventory costs only to the extent that they are recoverable at a normal or anticipated margin of income."

In addition to the usual chapters relating to depreciable fixed assets (plant) there are chapters on: Correc-

tion of Plant Cost and Accrued Depreciation, Changing Prices and Depreciation Cost, Adjusting Plant Cost and Depreciation—Outline of Procedures, Valuation of Plant, Plant Cost and Value in Utility Field, and Depreciation of Utilities. While the chapters relating to utilities are excellent in character, one may question the advisability of such extensive treatment in a college textbook on general accounting theory.

The final chapter is devoted to the problem of finding the worth of a business enterprise as a going concern. It is thorough and complex and rather highly theoretical.

The account terminology often is idealistic. If the term "surplus" were used in a single instance, this reviewer was unable to find it. The term "retained earnings" has much merit, but accountants are still searching for a simple term which will clarify a technical concept in the minds of readers without an accounting background.

Mr. Paton is well known for his thorough and painstaking work in the field of accounting theory. He puts a problem under the microscope and is not satisfied until he has examined it from all possible angles. He is not interested in practical improvising, but he is interested in arriving at sound theoretical conclusions.

Accounting practitioners and theorists will find this book challenging and helpful. It represents a keen and analytical approach to many accounting problems, and it will have a profound influence on the further development of accounting theory.

Asset Accounting is being used as a textbook at the University of Michigan and no doubt will be used in many institutions. It will be difficult for mediocre students to master, but the better undergraduate students will find it a valuable textbook. It should be particularly suitable for use with graduate students.

A problem book containing two hundred and seventy-five problems and cases has been prepared for student use.

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Fundamental Accounting. L. A. Schmidt and W. N. Bergstrom. (Chicago: Richard D. Irwin, Inc. 1952. Pp. ix, 517. $5.75.)

This new textbook has much to commend its serious consideration for the first-year course in accounting. Its simple and concise writing style should insure that the student can put his total energy to mastering the principles and techniques described, rather than spending himself on complicated verbiage. The many illustrations which appear throughout the text are likewise well chosen, both from the point of view of assisting the student and of provoking his thinking. The problem material presented at the end of each of the chapters seems to be quite adequate to provide the necessary practical application by the student.

A particularly interesting and valuable new development is the inclusion of a chapter on accounting machine techniques. Included, as it is, after a discussion of traditional principles and techniques the authors are able not only to describe the operation of a variety of accounting machines, but also to clarify the relationship of the machines to manual performance. This chapter should prove to be valuable both to the student and to the instructor who invariably encounters student curiosity about machine accounting.

Within the limitations imposed by their declared intention of following the "balance sheet approach" in their writing, the authors have done an excellent job of organizing, classifying and arranging the book into clearly defined sections. The section titles are as follows:

I. Fundamental Principles
II. Fundamental Techniques
III. Valuation and Income Determination
IV. The Partnership Form of Business Enterprise
V. The Corporate Form of Business Enterprise
VI. Fundamentals of Manufacturing Accounting
VII. Management Uses of Accounting

Furthermore, the student should find the brief *Introduction* to each of the above sections a valuable aid in tying together what he has thus far learned, as well as a useful tool in orienting himself toward the chapters which follow. In brief, the presentation and form are excellent.

Despite all the good that must be said about this text, there will be some who will find it disappointing. Most of this disappointment will stem from disagreement over the merits of what the authors described as the "balance sheet approach," and which they follow quite consistently throughout. Provided only with an appreciation of the "balance sheet equation" and bookkeeping techniques, it seems likely that the student, thus innocent of more basic theory, will turn to memory rather than the "independent thinking" which the authors expressly desire.

Profit and loss approach advocates—those who believe inventories, fixed assets, etc. can best be described simply as unamortized expenditures—will regard the efforts here to describe these assets in terms of "valuation" awkward and difficult for the student to understand and retain. This reviewer had a feeling of wandering without a compass through a forest of something vaguely called "valuation." In the discussion of the many "valuation" situations, each apparently a problem all its own, one would hardly suspect that in many cases this "value" is nothing more than the unamortized productive expenditure.

While the authors may be limiting their market largely to instructors of like mind, others will find it difficult not to admire the book's style and organization.

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How to Make a Procedure Manual. H. John Ross. (Miami: Office Research Institute, 1951. Pp. 123. $4.50.)

This book will be useful to teachers of Accounting Systems who are seeking a good statement of the rules for setting up standard practice instructions, with

numerous examples of what to do and what not to do. It will also be useful to private and professional systems men who design systems and write instructions, and to line accounting supervisors who have to transmit their own instructions and formalize them for continued use.

The author has drawn upon his own experience in procedures and he has assembled numerous examples of procedures from various companies, to illustrate his points. The book covers all of the technical matters relating to procedures. It also includes pertinent discussion of the practical aspects of management and employee use and acceptance.

The author defines "systems" as "the mechanics by which clerical routines are performed. They include equipment, forms and forms flow, sequence of operations, and working conditions." He defines "procedure" as "a formal instruction which controls the mechanics by which clerical routines are performed; including equipment, forms and forms flow, sequence of operations and working conditions." The book does not purport to deal with the structure of *accounting* manuals comprised of statements, classifications of accounts, descriptions of charges and credits to accounts, standard journal entries, and instructions in the use of forms. It does cover the area indicated in the definition.

The chapters are titled: Definitions and Purposes; Designing a Standard Practice Form; Writing Style; Housing; Duplicating Methods; Classification and Numbering; Manual Content; and Control. There are three appendices of exhibits. The book itself exemplifies the rules which the author sets out. It is in good mechanical and expository style. It is logical in structure, clear and complete, and easy to read.

The reviewer raises one demurrer, but to the preface and not to the chapters proper. He believes that possibly the author overstates the relative importance of procedures (as he defines them later) in comparison with other types of communication between management and employees. This is a minor point, however, since the coverage and emphasis of the chapters are kept within proper perspective.

The reviewer also believes that a bibliography, presented possibly as a separate pamphlet, would make the book more useful to teachers. There is a sufficient bibliography to warrant the attention of systems students.

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M.A.P.I. Accounting Manual. Machinery and Allied Products Institute. (Chicago: Machinery and Allied Products Institute, 1952. Various pagings, $15.)

Financial officers, accountants and general management engaged in the capital goods producing industry, and government administrators directly concerned with this industry, will find this manual a well-written, concise statement of the industry's accounting and related control problems with suggested approaches to their solution. The Manual represents the combined thinking of some 45 accounting officers of companies affiliated with the Machinery and Allied Products Institute, an organization which has as its stated purpose making the capital goods industry "better understood and an increasingly dynamic part of our economy."

Besides covering the industry's distinctive problems which arise from "heavy capital investment, the relatively long production cycle, manufacture in small lots (not uncommonly single machines), heavy preparatory expenses for designing and development, and substantial expenditures for erection, installation, and servicing after the product has left the factory," and "special problems in valuing inventory and in preserving the economic value of the capital through the erratic peaks and valleys of production," the authors briefly touch upon the entire scope of accounting problems confronting financial officers generally. No attempt is made to provide accountants with readily adoptable detailed procedures. For these the reader is referred to a comprehensive bibliography in the appendix. This conciseness and the use of nontechnical language, together with an assumption that the reader does not necessarily understand the finer aspects of accounting principles and techniques, should give the Manual a broad appeal. It can serve that part of general management which has not advanced through the acounting ranks to better understand the problems of the accountant.

To government administrators concerned with this industry, the manual should provide an insight to possible internal financial effects of their regulatory activities. Accounting students will find it instructive because its concise content encompasses a complete accounting system for one industry.

A third of the book is devoted to a recommended classification and description of accounts, so designed that individual companies can expand or eliminate accounts within the system. A Dewey decimal type of numbering system is used, the accounts being arranged in financial report sequence.

Typical balance sheet and income reports are briefly described and illustrated using the latest generally approved terminology. Methods of accounting and maintaining control records for assets, considerations in determining depreciation methods, and replacement, repair, maintenance and disposition policies are discussed in a section on property plant and equipment. The statement made therein that investment policy should be "based upon engineering, production, and sales data establishing the economic justification for such expenditures" is perhaps too brief to give the reader an idea of the real significance of this subject. Suggested methods or approaches for determining return on capital investment could well have been also included.

The section on manufacturing cost, besides providing a good resume of the various costing and inventory pricing methods available to the industry (and to industry generally), contains some original diagrams illustrating the flow of costs into inventory accounts and into manufacturing cost of sales. The special problems of allocating sales engineering and administrative expenses to product lines and products is covered generally together with a suggested technique for use in this industry.

A section on internal control summarizes the basic principles with particular emphasis on the use and objectives of an internal audit program and staff requirements to carry it out. Eight pages are devoted to specific suggestions as to minimum work to be done in internal audits.

The section on cost estimating covers general considerations in making cost estimates and their importance. Another section covers forecasting, establishment of budgets, analysis of variances, break-even point determination, and profit-to-volume relationships. Suggested budget reports and expense reports and graphic methods of depicting data are illustrated.

This accounting manual perhaps is unique in that it contains a brief section on pensions, but no attempt is made to evaluate the relative merits and weaknesses of the various types of pension discussed; nor is the adequacy of available financing plans covered.

In a concluding section the authors point out several aspects of the problem of the changing value of the dollar. Here again, no solution is offered; the authors recommend "that industrial company managements and their financial advisors undertake renewed investigation of their financial accounts in terms of economic income and economic values."

In spite of its failure in some cases to present complete and usable answers to current accounting problems, the *M.A.P.I. Accounting Manual* will fulfill a real need for a specialized source of reference and a starting point from which accountants and others can undertake further study in these areas.

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Manual for Mission Treasurers. George Gibbs. (Los Angeles; Protestant Episcopal Church in The Diocese of Los Angeles, 1951. Pp. 30.)

Books and articles on the subject of the financial administration of churches are almost non-existent. Business procedure manuals for churches are even more rare. This manual is, therefore, a real step forward, and the author who is Treasurer of the Diocese, is to be congratulated on his pioneering endeavors. It is well written, well documented, and should be an excellent office manual for the mission treasurers.

The responsibilities, duties and work of the mission treasurer are divided into six major topics. The first topic covered is the organization of The Protestant Episcopal Church, and the relation of each mission to the diocese and the national church. Then follow the major areas of personnel, physical properties, financial policies and practices, accounting, and finally, the reports of the mission treasurers. The manual thus answers a world of questions which a new treasurer would need to ask. It also provides specific answers to questions of policy which arise in the financial administration of the church.

The topic of personnel is divided into two sub-topics: the vicar, and lay employees. Under the first sub-topic there are six items discussed: appointment, stipend (shockingly low), Federal income tax, pensions, Blue Cross insurance, Workmen's Compensation Insurance, and vacations. Under lay employees, there are seven similar items. Each major topic is similarly broken down into easily handled items and therein lies part of the excellence of the manual.

It is a difficult task to inform lay personnel of the technicalities of accounting and financial administration, but Mr. Gibbs and his staff have done a good job.

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Internal Auditing Management Acceptance and *A Bibliography of Internal Auditing Literature*. Institute of Internal Auditors. (New York: Institute of Internal Auditors. 1952; pp. x, 149, 76; $3.50, bibliog. alone $1.50.)

Addresses presented at the tenth annual conference of the Institute (1951), are attractively bound with a 70-page list classified by subject which is said to include "all text books, and articles in periodicals and other technical publications which deal with the subject of internal auditing. This includes books and articles, whatever the source; and naturally covers completely the literature which has been published by the Institute." Source material is completely documented and listings include brief summaries of the content of the material. There is an index of publishers and publications. An interesting addition is the business affiliation of each author at the time of writing. This bibliography is a good job, and represents a lot of work, as anyone who has undertaken such a project will testify.

The convention offerings include thirteen short papers and transcripts of discussions, largely technical in nature but largely in outline form, facilitating selection of material of interest.

Altogether this measures up to the high standard of quality already set by this relatively new and very promising professional group.

A.M.C.

Employment Outlook in Accounting. U. S. Bureau of Labor Statistics and Veterans Administration. (Washington: Government Printing Office, 1952; pp. 32, 20¢.)

"The demand for accountants is expected to remain high during the entire period of defense mobilization and for a few years thereafter. In mid-1951 there was a scarcity of men qualified for top-level jobs and positions requiring narrowly specialized experience, but there was not as yet any serious general shortage of accountants. Because the supply of accounting graduates is expected to fall sharply, at least until the middle of the decade, it is likely that employment opportunities for new graduates entering this field will improve greatly during the next few years."

"Future prospects in the accounting field are discussed in . . . detail . . . in this report. Other sections describe the early growth of the profession, the types of work done by accountants, the major fields in which

they are employed, and the training and experience required for professional positions. The working conditions and earnings in each major field of accounting are also discussed."

This is a highly useful and pertinent document that should receive wide circulation in the profession, in industry, and in the colleges. The authors know what they are taking about; their comments on wages and working conditions in public accounting offices especially merit serious consideration in view of present difficulties in maintaining the quality and quantity of incoming accounting majors—which ultimately determines what the schools can make available to the profession.

A.M.C.

Business Mathematics

Mathematics of Finance. Albert E. May. (New York: American Book Company, 1951. Pp. viii, 148, plus Appendix 10, and Tables 106. $3.00.)

Business Mathematics. Walter F. Cassidy and C. Carl Robusto. (New York: Prentice-Hall, Inc., 1952. Pp. vii, 304, plus Tables 109. $6.35.)

The first book above listed (May) covers the standard topics associated with simple and compound interest: Introduction, 4 pages; Simple Interest and Simple Discount, 14 pages; Compound Interest, 23 pages; Simple Annuities (including Annuities Due, Deferred Annuities, and Perpetuities), 31 pages; Repayment of Debts (including Amortization by Equal Payments, and Use of Sinking Funds in Debt Extinction), 14 pages; Bonds, 19 pages; Depreciation (including sections on "Mine Valuation" and on Capitalized Cost), 12 pages; General Annuities (payment interval and conversion period not equal), 12 pages; Life Insurance and Annuities, 13 pages. Answers to odd-numbered problems are included, 4 pages; and Index, 2 pages. The Appendix includes 5 pages on Logarithms, and 5 pages on Exponential Equations, Geometric Progressions, and Expansion of Binomials.

The second book (Cassidy and Robusto) provides in the first two chapters a brief review of some of the elementary topics in Arithmetic (13 pages) and Algebra (25 pages). Chapters which follow are: Exponents and Logarithms, 28 pages; Percentage, 9 pages; Cash and Trade Discounts, 5 pages; Simple Interest, 22 pages; Bank Discount, 12 pages; Profit and Loss (covering the subjects associated with mark-up of merchandise, and also including a section on merchandise turn-over), 14 pages; Partnership (division of profits by arbitrary ratios, capital invested, average investments, and interest, bonuses, or salary), 9 pages; Real Estate (elementary and non-technical notes and problems on financing a house, maintenance cost, real estate income, assessed valuation and tax rate, with a section on Fire Insurance, including coinsurance), 8 pages; Averages (simple and weighted averages, averaging dates of invoices, and equation of accounts—average date of an account), 13 pages; Compound Interest, 36 pages; Annuities (same subject matter coverage as in May's chapters on Simple Annuities and General Annuities), 48 pages; Amortization and Sinking Funds, 5 pages; Valuation of Bonds, 8 pages; Depreciation and Capitalized Cost, 10 pages; and Life Insurance and Life Annuities, 19 pages. Answers to odd-numbered problems are included, 11 pages; and Index, 6 pages.

Both books contain five-place log tables, number of each day in the year, Commissioners 1941 Standard Ordinary Mortality Table, and CSO Commutation Columns, in addition to ample Compound Interest Tables with values of all functions to eight decimal places. Various annuity tables in May include 30 rates of interest from $\frac{1}{4}\%$ to and including $7\frac{1}{2}\%$, all given for 100 periods except for the rates $\frac{1}{4}\%$ to and including $\frac{7}{8}\%$ (10 rates) which are given for 200 periods. The same tables in Cassidy and Robusto include 28 rates of interest from $\frac{1}{4}\%$ to and including $6\frac{1}{2}\%$, all given for 100 periods except for the rates $\frac{1}{4}\%$ to and including $1\frac{1}{8}\%$ (12 rates) which are given for 150 periods. Both books contain tables for the Amount of $1 for a fractional part of a year: May for all 30 rates included in his other compound interest tables (Glover's Tables) with the standard fractional periods of 1 over 2, 3, 4, 6, and 12; Cassidy and Robusto for 25 rates from $\frac{1}{4}\%$ to 8% for fractional periods of 1 over 2, 3, 4, 6, 12, 13, 26, and 52. May includes one additional table for facilitating the solution of General Annuities (Table VIII on page 240).

Cassidy and Robusto have attempted to meet the growing demand in courses in business mathematics for adequate review and instructional materials to fortify the student's background in arithmetic, algebra, and use of logs and to serve more fully the needs of the accounting, statistics, finance, marketing and other business courses which the student may subsequently take. Even in the review chapters on arithmetic and algebra, however, this need is only partially met. The chapter on Arithmetic Calculations, for example, is too brief to be of real use to the student who needs the review. The chapter on Algebraic Operations is considerably better, but the authors have found it fit to include sections on Quadratic Equations, Arithmetic and Geometric Progression, and the Binomial Theorem while omitting entirely Simultaneous Equations, Solution of Equations in Fractional Form, and the Solution of Exponential Equations. These omissions together with failure to give special attention to the solution of Formulas at this point would be considered objectionable by many instructors. The section on exponents is good, but the section on Logarithms is only fair; the use of the block table form for interpolations would preclude efficiency of operation even though fully understood by the student. At no point in the discussion or illustrations is the student taught how to extract a root in excess of the square root of a number less than one, and the illustration on page 64 for extracting the square root of such a number is far from self-explanatory. The problems include only one item along this line, and that

involves the extraction of the square root of .6744, a problem identical in nature with that in the text illustration.

A satisfactory selection of subject matter for both review and instructional purposes is difficult because of lack of standardization in courses of this type. This is due in turn to a lack of good text materials. The course in business mathematics, if it is to serve the needs of the student and of the various business courses, must be designed with these needs in mind from the very first assignment in arithmetic through the very last assignment in compound interest. A proper order of presentation of the various subjects to be included is essential. Text-book writers in this field have in large measure failed to meet these requirements.

Cassidy and Robusto state in their preface that: "An attempt has been made in this text to keep explanations simple, brief, and not too technical. Some facts and formulas have been stated without proof. Mathematical rigor has been avoided in the belief that it is neither desirable nor necessary on this particular level." The necessity for simplification both in operational techniques and in presentation is in no quarter more appreciated than by the reviewer, but it must be accomplished without sacrificing the life and vigor of the course, the challenge to the better students, nor the incentive and opportunity for understanding which is essential to maintain interest on the part of the student and to equip him with methods and techniques he may apply with confidence long after the course is completed. Many examples might be cited from the text, but one will suffice. On page 98 a formula is given for determining the approximate rate of interest being paid on the typical equal monthly payment obligation. This formula is given in the chapter on Simple Interest without any indication of how it was arrived at. It can easily be shown that this formula was derived by dividing the average interest or carrying charge by the average balance of the installment obligation, but many students and many teachers would not be able to justify the formula nor to understand it in the form given. On the other hand, were the logic or basis of the formula explained and the steps of its derivation shown, the student would have the basis for understanding, would gain valuable exercise in the application of algebraic techniques, and would be far more likely at a later date on the basis of his own thinking to arrive at that formula, or one that would serve the same purpose.

Comments on the Compound Interest and related chapters in Cassidy and Robusto will be deferred until the following mention of Mays' brief *Mathematics of Finance* has been completed. May states in the preface to his book:

> "College courses in the mathematics of finance too often have been reduced to a mechanical process of plugging numbers into memorized formulas. This inordinate dependence on memory tends to bury the fundamentals of the theory so that a student is lost unless he remembers the particular formula for a particular problem. Experience shows, too, that the many equations, so well remembered for the short span of the course, fade rapidly from mind within weeks of the final examination."

May restricts his book to the basic subjects commonly treated in the typical Mathematics of Finance or Mathematics of Investment course. The introductory chapter emphasizes the idea of monetary equivalents where time intervals are involved, and outlines the subject matter to be covered in the subsequent chapters. A chapter on Simple Interest follows. The third and subsequent chapters deal with compound interest formulas and their application. Conversion periods, compound interest, and compound amount are explained. The compound amount formula is derived, and the *accumulation factor* $(1+i)^n$ is emphasized. The present value formula is arrived at as a converse case of the compound amount formula, and the *discount factor* $(1+i)^{-n}$ is presented. Converse case determinations of i and n by both interpolation in the compound interest tables and by use of logs are illustrated. In the following chapter the amount of an annuity and the present value of an annuity formula are derived. With proper emphasis on the date at which these formulas determine the value of the annuities, the student now has the four basic formulas which permit solution of deferred annuity and annuity due problems, converse case determinations for sinking fund contributions, amortized loan payments, number of payments, etc.; all this without the introduction of new formulas. Bond price determinations by computing present value of the par plus present value of the cash interest payments and by the discount and premium method are also presented without the introduction of new formulas. Approximate determination of yield rate on bonds by the average interest income over the average investment method as well as the interpolation method are explained and illustrated. It should be noted in this connection that in the determination of the average investment in bonds in the illustrations on page 100, the author uses the maturity or redemption value at the end of the period in arriving at the average instead of the carrying value at the beginning of the last six-months period. Use of the last mentioned figure should produce a slightly more accurate yield rate approximation.

If we were to judge this book by the "accounting slips and mis-statements that we have come to expect in such works," we might quote from pages 106 and 107 on Depreciation. This reviewer, however, prefers to consider the book on the merits of its basic approach and its possibilities as an aid to teaching the mathematics of accounting and finance. So considered, the general method, although not entirely new, is the ideal approach. Long experience in teaching mathematics of accounting courses has led the reviewer to use this as the natural and simple approach. Although the basic approach is very good, the author has not simplified his presentation to the full extent possible. The converse case formulas, the annuity due, deferred annuity, and bond price formulas, including the customary alternate forms may still serve a useful function provided the method is used to promote understanding. Too much "*s* angle *n* at *i*" may cause more confusion and lack of understanding on the part of the business student who is not accustomed to extensive use of symbols. As is the case in practically all books in this field, undue difficulty is caused the student through the manner in

which equivalent and effective rates are presented. Why something basically so simple should be made so complex in the formula presentations is difficult to understand.

Although May's book has considerable merit from the standpoint of the approach and the order of presentation of materials, it may still offer difficulties in use as a textbook. As is the case with most books in this field, considerable teaching effort would be required by a teacher having the requisite training and ability.

Cassidy and Robusto use the same approach as May in their compound interest chapters, and follow, with minor variations the same order of presentation. Generally speaking, the two treatments are so much alike that comparable difficulties would be found in each. One possible exception is in the case of General Annuities, the presentation being considerably simpler in Cassidy and Robusto. On the other hand, Cassidy and Robusto omit some methods and techniques; for example, in rate and period determinations the interpolation procedures are all that are given, solution by logs merely being mentioned; annuity formula derivations are done only on equation of value basis; in connection with bonds the simpler premium-discount method of arriving at the bond price is not given, nor is the average income/average investment method of determining the yield rate. Serial and annuity bonds which are treated briefly in May are omitted in Cassidy and Robusto.

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Economics

Business Forecasting, Principles and Practices. Frank D. Newbury. (New York: McGraw-Hill Book Company, 1952. Pp. vii, 273. $4.75.)

Every business concern forecasts in the sense that its managers strive to anticipate customers' demands, the need for raw material and labor, the probable course of prices and the probable volume of sales. Thus the question is not *whether* but *how* a manager will forecast. The author of *Business Forecasting* feels that any organized plan of forecasting is better than no plan at all. On this basis he proceeds to discuss the principles and practices of *organized* forecasting drawing heavily upon his long period of experience with the Westinghouse Electric Corporation.

There are two approaches to the problem of forecasting: first through an understanding of various economic principles and relationships that affect business behavior, and second through an organizing of past experience with the aim of projecting it into the future on the implied assumption that other conditions will remain constant. The first approach deals with measures of national production. Chapter 3 of the book explains the concepts, of Gross National Product, Net National Product, National Income, Personal Income and Disposable Income. Chapter 4 is devoted to a simple explanation of Keynesian business cycle theory. In general the income from one round of production depends upon the expenditures of the preceding round. Thus if expenditure in any one period exceeds or fails to equal current income (as a result of the spending of past hoards or of newly created money or as a result of hoarding current income) the income of the next period is affected. Four hypothetical cases are cited to show the relationships involved.

To forecast Gross National Product the forecaster must: (1) estimate private expenditures for new construction and machinery (by noting plans of a sample number of corporations), (2) estimate probable changes in inventory (from a first hand knowledge of trade conditions), (3) estimate the excess of exports over imports (difficult to do), and (4) note planned government purchases of military goods from private business. The total of these four types of expenditures has correlated with Gross National Product in the past. Briefly the relationship is that the G.N.P. is equal to 3.67 times the expenditure plus 30 billions of dollars. Presumably if the forecast is greater than the current figure, general business activity can be expected to be accelerated and vice versa.

Beginning with chapter 9 the author discusses methods of forecasting by past experience. Statistical techniques for handling trends, seasonal and cyclical variations are treated. The author is of an opinion that three cycles are most significant to the business forecaster. These are (1) the long residential business cycle (18 years), (2) the intermediate cycles of heavy durable-goods industry (one 75 months and the other 14 months), and (3) the short textile cycle (23 months).

By means of rate-of-change cycles the peaks and valleys of business cycles can be obtained. By superimposing the cycle patterns the timing of the next peak or valley can be estimated or at least the strength of the current movement can be appraised. The author warns that such forecasting amounts to "putting up road signs which point the direction but are vague as to distances. But, as in a journey, if we can be sure we are headed in the right direction, exact distances are not too important."

The final three chapters are devoted to the Federal Reserve Index of production, forecasting prices and forecasting sales.

Accountants who do not like economic theory may find the book rather difficult to read. On the other hand, the author is theoretical only for the sake of practical application and is never more theoretical than the situation requires. He has the ability to make involved, vague and difficult theories look like simple common sense propositions. The book should be classed as a "must" for everyone engaged in or interested in forecasting.

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American Capitalism, The Concept of Countervailing Power. John Kenneth Galbraith. (Boston: Houghton Mifflin Company, 1952. Pp. xi, 217. $3.00.)

Historically, the economic model or ideal for the American economy has been that of competition. In the present study, Professor Galbraith points to the decline of competition, as an effective regulator, and describes the development of "countervailing power" which he considers to be a valuable and indispensable substitute.

Competition won acceptance with economists, Professor Galbraith states, because of their observation and belief that it promotes "productive efficiency." It gained acceptance with businessmen and political philosophers, on the other hand, because of the way in which it solves the problem of economic power—the power to affect the income, actions, or property of other persons. With the existence of rigorous competition, and with private property widely diffused, there is little scope for the abuse of private economic power. Enterprisers seeking to exploit consumers or workers find themselves held in check by rivals willing to sell for a moderate profit or to pay the going rate of wages. Since the problem of economic power does not exist in harmful form, there is little need for the exercise of governmental authority to regulate the economy.

With the advance of the American economy, Professor Galbraith observes, the actual business structure has grown increasingly apart from the competitive standard. In place of many sellers, with prices and outputs governed by market forces, there is now a small number of giant sellers, with prices and outputs controlled in large measure by the deliberate action of producers themselves. Salesmanship and advertising rather than price competition have become the means for stimulating demand. In such an environmental setting, the competitive pressures of the economists' model, Professor Galbraith observes, operate most imperfectly, if at all, either to promote efficiency or to counterbalance private power. "The incentives in the typical American industry," he states, " . . . do not in fact work in the direction of maximum output at lowest prices. . . . In consumers' goods industries, great energy is, without doubt, channeled into one or another form of selling effort, which is of no perceptible benefit to the public and which is not in response to any recognizable public demand" (90–91).

Although the rise of oligopoly has brought the losses summarized in the foregoing paragraph, it has also brought compensating gains, the author declares. The losses, he believes, are "more than offset by large gains from technical development" (97). In his view, technical innovation "can be carried on only by a firm that has the resources associated with considerable size . . . the net of all this is that there must be some element of monopoly in an industry if it is to be progressive" (92–93). The losses in social efficiency, Galbraith further adds, are minimized by the nation's general opulence.

In the ideal of competitive markets, Professor Galbraith continues, restraints on the private exercise of economic power are provided by rival sellers. With the decline of effective price competition, this regulatory mechanism has been weakened or destroyed. It is at this point that the author introduces his concept of "countervailing power." In his view, *new* restraints on private power have appeared *to replace competition*. These restraints are the pressures exercised by *customers* or *suppliers* (including labor unions). This counterpart of competition is what he calls *countervailing power* (118).

The major weakness of countervailing power, Professor Galbraith states, arises during periods of inflationary pressures. During such periods, he observes, "it does not function at all as a restraint on market power" (133), for employers and sellers are willing to pay higher cost prices and pass them on to consumers.

Except in the situation of inflationary demand, however, Professor Galbraith advances the view that "countervailing power performs a valuable—indeed an indispensable—regulatory function in the modern economy" (143). In his view, government should give it freedom to develop and also assist and participate in its development. Indeed, he observes that perhaps the major domestic function of government has become that of promoting the development of countervailing power by granting special favors to organized producers—such as the coal producers, organized labor, and farm groups. In the main, it appears that he approves of this growing manifestation of neo-mercantilism. By strengthening one group in relation to another, he believes that the need for over-all government control or planning is lessened (155, 173).

This book is a timely, interesting, and valuable study. It is written with a high order of integrity and objectivity. A valid case can certainly be made for the strengthening of various labor groups, producer co-operatives, and the central buying units of independents. In my opinion, however, the author minimized the dangers *to consumers* of a governmental policy granting special privileges to organized producers. I believe, too, that he fails to recognize the injury to consumers which results from the collusive action of labor groups and organized producers in holding up and raising product prices *even when inflationary pressures are not present.* Further, I believe that the author minimizes the important need to diffuse economic power which has been built up by mergers, interlocking directorates, and related means and which is not essential for technical advance or productive efficiency. If centralized power and price discrimination (in part a product of countervailing power) were effectively curbed by antitrust action, the need for government action to support and promote the growth of countervailing pressures would be significantly reduced. This approach would, indeed, reduce the need for big government and centralized control.

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Shirtsleeve Economics, A Common Sense Survey. William A. Paton. (New York: Appleton-Century-Crofts, Inc., 1952. Pp. xix, 460. $4.00.)

Shirtsleeve Economics does two things: it gives us a plain statement of economic fundamentals and it presents a clear and reasoned case against any mystical faith in government. In this day of immense aggregations of power and wealth at the command of govern-

ment, with all their confusing and hypnotic effects, it is refreshing and valuable to have the facts presented to us in such a way that anyone who is barely literate can understand them.

While it is always good to avoid superlative praise, it does not seem too much to compare the style of this book to that of Jonathan Swift in "Drapier's Letters" where the effect of currency dilution is exposed for everyone to see no matter how limited his education. Both authors treat difficult economic questions in an equally easy, colloquial, pungent and vigorous style.

An influence which is felt throughout the entire book is the effect of the double-entry discipline on the logical processes of the author. Dr. Paton is a distinguished accountant, known for many years in the profession for the depth of his insight and the independence and vigor of his views. The constant preoccupation with a process which requires every transaction to be viewed from two sides and which must take the source as well as the effect into consideration, is evident in his inexorable linking of cause and effect and his persistent search for the actual costs of the results attained by certain debatable government policies.

The results are taken for granted by many but few care to reason out the ultimate costs and penalties. The exposure of the inherent fallacies of the social security program (Chap. XII) and the description of how the government "creates" purchasing power and money (Chap. VII) are good examples of this.

The method used for explaining the economic processes is the reduction of the large, glittering and amorphous generalities we hear so often, "national product," "full employment," "social security," "support-prices," "managed currency" to small, down-to-earth examples that anyone can understand.

Dr. Paton's views must seem rather strange and old-fashioned to readers of modern books on economics. Production is, to him, the foundation of economic well-being. He considers the possibility of something for nothing an illusion. He believes that government produces nothing and takes a large toll on everything it receives or distributes. He believes thrift is a virtue, instead of a weakness and he does not think a shorter work week is a method of improving the standard of living.

Throughout the book the fact that current operations and consumption must be provided for by current production is stressed and repeated. It is made abundantly clear that the costs of war, government administration and planned or accidental waste must be paid from current production and cannot be transferred to a future generation. All that the piling up of debt can accomplish is a different distribution of current production in the future and all that the pieces of paper which represent so-called social security funds can do is to direct the future distribution of some parts of future current production.

These may seem strange doctrines to some of our teachers who have taken the Neo-Marxist books on economics too seriously but these doctrines will be a most valuable support to the great majority of teachers who are trying to base their courses in economics on facts and common sense.

The case against a mystical faith in government is well put in several parts of the book either directly or by implication (see Chap. I p. 14 and all of Chap. X). This may sound like a far-off or, at least, not a particularly immediate danger but there seems to be little doubt that this attitude towards a state or government is at the root of much of the world's troubles today.

Mysticism is a proper approach to something outside of and beyond ourselves and beyond our comprehension in terms of fact, reason or measurement. Immediate communication and communion with God without any material or mental intermediary is the goal, the aim, the burning desire of the true mystic.

It is occasionally achieved. The results are filtered down to the vast majority who are incapable of such spiritual achievement. But the true mystic is well aware of the difference between the object of his desire and the world of sense, fact and reason. St. Catherine of Siena was a profound mystic but was, at the same time, a most skillful administrator, negotiator and politician.

Christ said, "Render unto Caesar the things which are Caesar's and unto God the things which are God's." This is enough guide for anyone in his relations to the State. Caesar is entitled to fair taxes, civil obedience, the observance of just laws and, in general, to the observance of the duties of the citizen. These obligations are to be fulfilled on a matter-of-fact, quid-pro-quo basis. The citizen is entitled, and sometimes required, to question whether Caesar's exactions and demands are within his powers and the citizen has a right, and sometimes a duty to resist unfair demands.

The things which are God's are to be given freely, without calculation or afterthought. Love, reverence, devotion, sacrifice and worship are in their essence given as fully and freely as possible. When directed to the right objects and purposes they are fundamental sources of good; when misdirected the greatest forces for evil.

Back of all totalitarianism is a mis-directed mysticism. The worship of Hitler and Stalin is the same evil thing that arose in the later Roman empire with the deification of the Caesars. The custom of the Roman republic, where a slave whispered in the ear of the hero, in his triumph, "Remember, you are only a man," was replaced by the erection of statues to the "divine" Nero or Caligula. The worship of the State is the same as the deification of a Caesar. Relying on the State for total security is the repudiation of religion and the abdication of the intellect. After reading Chap. X of this book it should be difficult for any thinking person to maintain this attitude.

The further this book can be spread the better. Many of its significant and interesting points must be passed over in a brief review but there is hardly a page without some new thought or some arresting statement of a familiar truth. The book should be required reading in high schools and universities. Businessmen and legislators should study it. If they can stand it, it should be read by government officials and employees.

Dr. Paton has shed luster on the profession of accounting and the science of economics in this book and has rendered the public a valuable service in writing it.

MAURICE E. PELOUBET
Pogson, Peloubet & Co. New York

Taxes

Montgomery's Federal Taxes—Corporations and Partnerships, 1951–52. Robert H. Montgomery, Conrad B. Taylor, Mark E. Richardson. (New York: The Ronald Press Company, 1952; 2 vols., pp. 3000; $35.)

Montgomery's Federal Taxes—Estates, Trusts and Gifts, 1951–52. Robert H. Montgomery, James O. Wynn, G. Harold Blattmachr. (New York: The Ronald Press Company, 1952; pp. 1200; $15.)

I write a lot of tax books. So the editor of these pages is rather bold to toss me the job of reviewing another tax book. But this job concerns the granddaddy of all tax literature, the 1951–1952 edition of *Montgomery's Federal Taxes.*

So my chore therefore is exciting, most acceptable—particularly for a Johnny-come-lately into tax writing. I started in the late thirties with my stuff. *Montgomery's* was my bible, dictionary, encyclopedia—and source of enormous romantic involvement—way back in World War I days— when so many of us were pinned into our tax diapers by the tax family. From my first perambulatings, my daily ration was this directory into all stuff difficult.

Today, the annual publication has developed to gargantuan proportions,—something over 4000 pages wacked up into three formidable volumes—and marketing for $50. In my teething era it was a midget, costing little more than *Forever Amber*, and infinitely much more fun for the practitioner to keep at his bedside.

The current stoutness is no fault of the author. The complexities of what we call the self-assessment process of collecting Federal income, excess profits, estate and gift taxes (plus the dozen other taxes that float in the alleyway of these four monsters—the personal holding company tax, the Section 102 tax, *et al.*) . . . the complexities have grown to astounding size. It now really takes a library of a couple of thousand volumes (I'm writing this and gasping at the stuff I own) to make sure you are technically equipped to cover the subject and your client. Beyond that, it takes attendance at all sorts of Tax Institutes (I run one for New York University, and I naturally put in plugs as I go along), lectures, tax study groups—to make sense out of what is happening, and what we should do about it.

Where fits *Montgomery's* into this? Starting with the overwhelming authority of the author—and bold interpretative writing—when the income tax was first set up—this has become the source for first research on moot questions. Lots of highly skilled tax men have repeatedly said—"This always reads like the briefing the Montgomery office gets up for study of its own tough problems; obviously I want to get that first in my running down the record of what to do in my own worry."

This then—at 4000 pages—is no longer anything you use for light evening reading. You keep it at your desk for studious reference, when you have a new—or an old question. And you usually check it first, when you want to get a terse, readable, summarization of the current law, the decisions and—most important, the reasoning applied to all these by a great host of students.

And it is a host that does the job—or so the prefaces to the three volumes indicate. Heading up the chore of annually remaking the two books dedicated to the income tax and the excess profits taxes (in addition of course to Colonel Montgomery) are Conrad B. Taylor and Mark E. Richardson. The Colonel's principal associates in the estate and gift tax volume are James O. Wynn and G. Harold Blattmachr. Then this group are aided (I did not count them) by what seems like hundreds of associates and partners in the Lybrand, Ross Brothers and Montgomery offices.

And there to restate, is the strength of this standby: It seems to be the condensed thinking of what the far flung, highly experted Montgomery firm has been reasoning out and saying to itself in its own tax problems.

Tax literature—the 2000 volumes I talked about above—today roughly divides itself into: (1) highly respected tax services, (2) personal ramblings of recognized authorities in loose leaf or bound form (Montgomery's fits into this group), (3) daily, weekly, monthly letters and booklets giving reports, trends, advice, what to do, what not to do, when not to move—and when to get going in what you are thinking about. The last batch of stuff (and I do my share of it) shouts out the tale of what it sees, and hears. It is quickly forgotten. The tax services are important for complete coverage of a subject in all research. The signed books—*Montgomery, Mertens, Rabkin & Johnson, Paul,* and just a few others—are our life lines in our daily work.

Thus far, there has been no review here of the content of the 1952 *Montgomery's*. I've let them sit on the desk for a couple of weeks hoping (as I looked into them for something badly needed in my own labors) that I might find the easy way to condense the manner in which they are built to give full succor to the tax man.

I give up. They can only be described as daily bread for all who subsist so precariously in the morass of 30 years of indecision, decision, tax law and new tax law. They simply must have them as an important guide for all their wanderings.

J. K. Lasser

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